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SESSIONAL PAPERS

VOL. LXVII.—PART VI.

FIRST SESSION

OF THE

NINETEENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO

SESSION 1935

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TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1936

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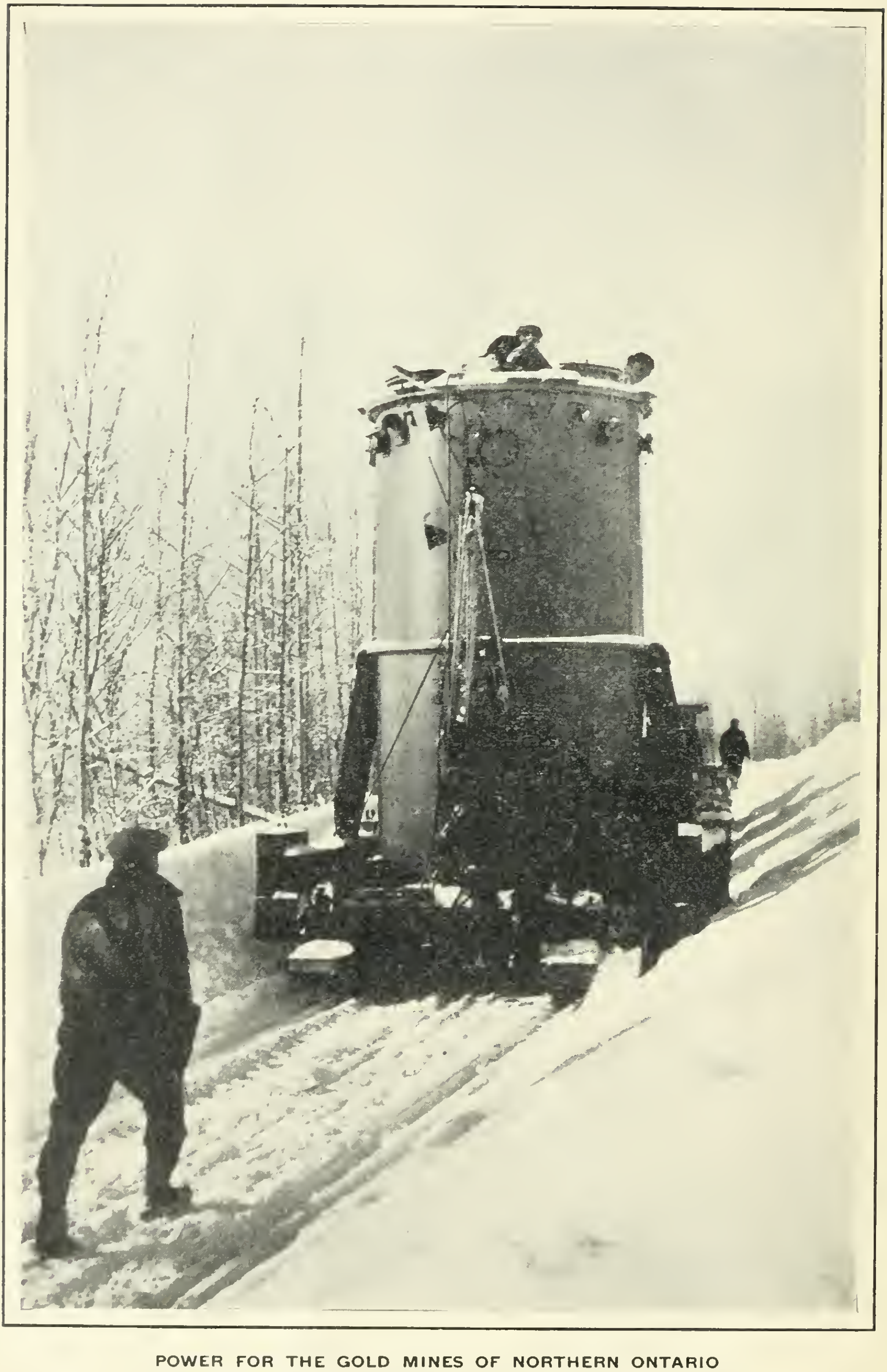

POWER FOR THE GOLD MINES OF NORTHERN ONTARIO

Transportation Difficulties Overcome—Twenty-six Miles by Tractor

Transformer of 1,500-kv-a. capacity en route to Matachewan

TWENTY-SEVENTH ANNUAL REPORT

OF THE

HYDRO-ELECTRIC POWER COMMISSION

OF THE

PROVINCE OF ONTARIO

FOR THE YEAR ENDED OCTOBER 31st

1934

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

THE

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

T. Stewart Lyon	*Chairman*
Hon. Arthur W. Roebuck, K.C., M.L.A.	*Commissioner*
Hon. Thomas B. McQuesten, K.C., M.L.A.	*Commissioner*
W. W. Pope	*Secretary*
A. Murray McCrimmon	*Controller*

Chief Engineers

T. H. Hogg, B.A. Sc., C.E., D.Eng.	*Hydraulic and Operation*
R. T. Jeffery, B.Sc.	*Municipal Relations and Rural Power*

To His Honour

The Honourable Herbert A. Bruce, R.A.M.C., M.D., F.R.C.S.,

Lieutenant-Governor of Ontario

May It Please Your Honour:

The undersigned has the honour to present to Your Honour the Twenty-seventh Annual Report of The Hydro-Electric Power Commission of Ontario for the fiscal year ending October 31, 1934.

This Report contains a record of the Commission's activities in construction and administration and embodies also its financial statements for the year ending October 31, 1934. It also presents, for the calendar year 1934, financial statements and statistical data relating to the municipal electric utilities operating in conjunction with the various systems of the Commission and supplying electrical service to the citizens of the Province.

The Report includes also details of the operation of the Northern Ontario properties which are owned by the Province and operated by this Commission, under an agreement by which any deficits incurred in operation are provided from the provincial treasury, and any surplus funds remaining from operations are transferred to the treasury.

The financial statements, statistical data and general information given, are so presented as to provide a comprehensive survey of the Commission's operations. For the information of Your Honour and the Members of the Legislature comparative statements have been compiled showing, for the several systems of the Commission, for a number of years past, the total cost of power supplied to the co-operating municipalities and to other consumers of each system, including the total cost of power purchased under contract for each system; the revenues of each system; and the additions made to, or the withdrawals from, the various reserve funds of each system.

Seven Years Power Load

The following tables show the distribution of primary and secondary power to all systems, the cost of operation including the amounts paid for purchased power, and the rapid increase of the use of electric energy in the gold fields of Northern Ontario during the past seven years. The primary load in the Niagara system at the end of 1934 was still materially less than at the end of 1929, the period of greatest consumption, as the figures for the month of December clearly show, but the expansion in the secondary power load in all systems brought up the total primary and secondary power supplied in December, 1934, to the highest figures yet recorded.

DISTRIBUTION OF PRIMARY POWER TO SYSTEMS

20-Minute Peak Horsepower—System Coincident Primary Peaks

System	1928	1929	1930	1931	1932	1933	1934
	October						
Niagara system, 25-cycle	811,973	931,261	879,518	805,630	839,946	848,793	856,434
Dominion Power & Trans.			58,579	48,659	43,968	45,710	50,670
Eastern Ontario system	77,654	82,299	87,990	85,857	80,544	86,890	91,716
Georgian Bay system	20,082	22,118	23,355	26,356	25,666	23,887	24,488
Thunder Bay system	48,910	77,117	73,968	51,600	58,140	66,187	60,188
Manitoulin rural power dist.						80	88
Northern Ont. properties:							
Sudbury district			12,935	10,724	7,574	12,466	12,466
Abitibi district				17,800	11,340	15,777	31,501
Nipissing district	3,170	3,599	3,745	3,689	3,751	3,539	3,840
Patricia district			1,582	1,912	2,048	2,627	2,828
Espanola district							509
Total	961,789	1,116,394	1,141,672	1,052,227	1,072,977	1,105,956	1,134,728
	December						
Niagara system, 25-cycle	891,904	969,123	902,392	828,200	838,338	879,893	901,877
Dominion Power & Trans.			61,528	56,166	48,525	51,743	54,021
Eastern Ontario system	81,548	90,255	93,560	91,253	86,716	91,924	96,783
Georgian Bay system	21,595	22,961	25,591	27,531	26,424	25,496	26,816
Thunder Bay system	66,300	64,588	61,300	50,300	55,570	54,704	69,658
Manitoulin rural power dist.						84	108
Northern Ont. properties:							
Sudbury district			10,724	11,059	9,853	12,802	13,003
Abitibi district				13,000	13,000	14,745	32,842
Nipissing district	3,248	3,492	3,654	4,088	3,799	3,901	4,008
Patricia district			1,521	1,926	2,058	2,735	2,855
Espanola district							535
Total	1,064,595	1,150,419	1,160,270	1,083,523	1,084,283	1,138,027	1,202,506

Note.—The above figures represent primary loads, and are strictly comparable from year to year. The figures which have appeared in this table in former years have represented total loads on the basis in use at the time; for example, on page viii of the 1930 report, the October 1930 load is shown as 1,000,670 horsepower. In addition to the primary load of 879,518 it contained at-will export 113,592 horsepower and a transfer to the Georgian Bay system amounting to 7,560 horsepower. While the latter is a primary obligation upon the Niagara system so far as generating resources go, it does not represent Niagara system load and as this load is included in the Georgian Bay system figures it must be excluded from those of the Niagara system. The correction has been made in all subsequent years.

Municipalities Served

At the end of the fiscal year, the number of municipalities served in Ontario by the Commission was 760. This number included 27 cities, 96 towns, 270 villages and police villages, and 367 townships. With the exception of 14 suburban sections of townships known as voted areas, the townships and 93 of the smaller villages are served as parts of 171 rural power districts.

Rural Line Expansion

The total mileage of rural lines constructed, or under construction, at the end of October, 1934, amounted to 9,461 miles, of which 183 miles represented the construction program during the year 1934.

DISTRIBUTION OF POWER TO SYSTEMS—TOTAL PRIMARY AND SECONDARY

20-Minute Peak Horsepower—System Coincident Peaks

System	1928	1929	1930	1931	1932	1933	1934
	October						
Niagara system, 25-cycle	878,327	948,412	1,038,110	860,630	867,446	1,055,697	1,071,046
Dominion Power & Trans.			58,579	48,659	43,968	45,710	50,670
Eastern Ontario system	77,654	82,299	87,990	85,857	80,544	86,890	121,823
Georgian Bay system	20,082	22,118	23,355	26,356	25,666	23,887	24,488
Thunder Bay system	48,910	77,117	73,968	51,600	65,700	90,450	99,866
Manitoulin rural power dist.						80	88
Northern Ont. properties:							
Sudbury district			12,935	10,724	7,574	12,466	12,466
Abitibi district				17,800	11,340	45,389	64,075
Nipissing district	3,170	3,599	3,745	3,689	3,751	3,539	3,840
Patricia district			1,582	1,912	2,048	2,627	2,828
Espanola district							509
Total	1,028,143	1,133,545	1,300,264	1,107,227	1,108,037	1,366,735	1,451,699
	December						
Niagara system, 25-cycle.	893,231	969,123	1,073,400	883,200	838,338	1,134,262	1,150,938
Dominion Power & Trans.			61,528	56,166	48,525	51,743	54,021
Eastern Ontario system	81,548	90,255	93,560	91,253	86,716	116,127	127,849
Georgian Bay system	21,595	22,961	25,591	27,531	26,424	25,496	26,816
Thunder Bay system	66,300	64,588	61,300	50,300	63,800	120,000	122,922
Manitoulin rural power dist.						84	108
Northern Ont. properties:							
Sudbury district			10,724	11,059	9,853	12,802	13,003
Abitibi district				13,000	13,000	46,890	93,029
Nipissing district	3,248	3,492	3,654	4,088	3,799	3,901	4,008
Patricia district			1,521	1,926	2,058	2,735	2,855
Espanola district							535
Total	1.065,922	1,150,419	1,331,278	1,138,523	1,092,513	1,514,040	1,596,084

Note.—In some instances the above figures differ slightly from those appearing in the Annual Reports. Corrections have been made for the transfer of power between the Niagara and Georgian Bay systems, inclusion in the Niagara system of Gatineau resale, and, in the earlier years, using system coincident peaks instead of the sum of the district peaks for the Eastern Ontario system and showing Sudbury and Abitibi as separate districts.

In order to encourage a more liberal use of electric power by Ontario farmers, studies were made during the year which had for their objective the further reduction of rural rates and the beneficial utilization of surplus energy. As a result of these studies three major benefits were approved, as follows:

Free Service Inducements

Commencing November 1, 1934, and during a period of three years thereafter, the Commission will provide current, free of charge, to operate electric washing machines, licensed alternating current radios, and electric pumps to provide water under pressure for household sanitary systems.

The offer is available to all present farm and hamlet users (excepting summer cottages) now supplied from all Hydro rural power districts in Ontario, who are paying standard rural rates approved for each district. It applies also to all new farm and hamlet homes which may be added to these lines as consumers during the three-year period.

(*continued on page* xii)

COMPARATIVE FINANCIAL STATEMENTS

NIAGARA

Year	1928	1929
	$ c.	$ c.
Power purchased	378,630.25	1,638,516.84
Operation, maintenance and administration	4,551,317.95	4,711,607.15
*Interest	7,880,952.25	8,095,444.48
Provision for renewals	1,015,363.26	1,127,242.22
Provision for contingencies, etc.	2,857,495.02	3,117,605.94
Sinking fund	1,672,266.49	1,738,183.90
TOTAL COST OF POWER	18,356,025.22	20,428,600.53
Less:		
Amount appropriated from the contingencies reserve of the system and applied in reduction of the cost of power		
Net total	18,356,025.22	20,428,600.53
REVENUE from municipalities at interim rates, from rural consumers and from private customers under flat rate contracts	19,121,214.81	21,664,808.55
Net balance credited or charged to municipalities under cost contracts	765,189.59 Credited	1,236,208.02 Credited
Capital investment	161,994,023.61	168,004,159.13
*Exchange included in above total of interest		

GEORGIAN BAY

Year	1928	1929
	$ c.	$ c.
Power purchased	13,677.86	32,245.28
Operation, maintenance and administration	267,315.34	313,246.50
*Interest	247,283.44	255,110.13
Provision for renewals	72,267.13	78,574.72
Provision for contingencies, etc.	47,950.30	52,462.33
Sinking fund	55,892.24	59,641.34
TOTAL COST OF POWER	704,386.31	791,280.30
REVENUE from municipalities at interim rates, from rural consumers and from private customers under flat rate contracts	807,179.08	873,568.95
Net balance credited or charged to municipalities under cost contracts	102,792.77 Credited	82,288.65 Credited
Capital investment	5,546,340.02	6,310,034.95
*Exchange included in above total of interest		

RESPECTING THE SYSTEMS OF THE COMMISSION

SYSTEM

1930	1931	1932	1933	1934
$ c.	$ c.	$ c.	$ c.	$ c.
2,644,916.07	3,979,524.00	5,513,435.12	6,738,406.63	6,872,793.14
5,606,062.59	5,653,006.77	4,893,571.40	4,800,173.78	4,821,848.99
8,980,374.58	9,502,526.86	10,691,491.55	10,445,990.16	10,138,022.77
1,606,458.27	1,391,105.25	1,579,701.50	1,628,176.44	1,627,164.82
2,893,784.93	617,820.29	118,462.65	125,698.79	129,514.12
1,794,591.02	1,872,727.14	1,977,928.39	1,883,199.99	1,987,207.74
23,526,187.46	23,016,710.31	24,774,590.61	25,621,645.79	25,576,551.58
....	....	......2,544,648.63	4,236,606.73	2,869,828.36
23,526,187.46	23,016,710.31	22,229,941.98	21,385,039.06	22,706,723.22
24,467,322.68	23,752,132.85	22,459,448.97	21,096,722.06	22,543,780.63
941,135.22 Credited	735,422.54 Credited	229,506.99 Credited	288,317.00 Charged	162,942.59 Charged
199,799,252.77	208,501,899.28	207,977,388.63	208,143,427.49	208,626,540.68
....	....	605,439.72	416,066.06	74,330.69

SYSTEM

1930	1931	1932	1933	1934
$ c.	$ c.	$ c.	$ c.	$ c.
53,201.27	64,410.77	18,810.77	27,316.52	43,832.70
360,061.28	438,941.70	483,137.12	440,008.76	409,286.71
299,428.66	356,655.71	412,557.36	396,690.67	380,745.19
92,375.30	121,800.88	124,737.66	128,111.66	129,844.11
35,695.22	47,827.76	54,229.21	57,148.73	43,570.17
69,344.10	83,789.13	86,698.15	87,826.94	88,348.64
910,105.83	1,113,425.95	1,180,170.27	1,137,103.28	1,095,627.52
926,692.34	1,050,823.94	1,161,831.25	1,163,135.32	1,181,960.85
16,586.51 Credited	62,602.01 Charged	18,339.02 Charged	26,032.04 Credited	86,333.33 Credited
7,940,666.96	8,203,445.46	8,329,025.78	8,394,645.25	8,427,278.77
....	....	36,417.15	19,190.49	4,464.50

COMPARATIVE FINANCIAL STATEMENTS

EASTERN ONTARIO

Year	1928	1929
	$ c.	$ c.
Power purchased	363,402.95	440,595.40
Operation, maintenance and administration	990,657.54	932,194.87
*Interest	783,029.18	810,478.17
Provision for renewals	191,653.02	196,129.59
Provision for contingencies	411,815.79	260,564.74
Sinking fund	23,612.88	151,030.71
TOTAL COST OF POWER	2,764,171.36	2,790,993.48
Appropriated from contingencies reserve to cover shortage on operation of local distribution systems		
Net total	2,764,171.36	2,790,993.48
REVENUE from municipalities at interim rates, from rural consumers and from private customers under flat rate contracts	3,054,260.20	3,025,908.37
Excess revenue over cost of power	291,088.84	234,914.89
Profit from sale of power to companies and/or local distribution systems, transferred to contingencies reserve	218,962.33	148,980.44
Net balance credited to municipalities under cost contracts	71,126.51	85,934.45
Capital investment	19,446,757.26	20,447,230.08
*Exchange included in above total of interest		

THUNDER BAY

Year	1928	1929
	$ c.	$ c.
Power purchased		3,161.50
Operation, maintenance and administration	143,353.98	191,903.99
*Interest	651,827.79	662,675.66
Provision for renewals	109,106.32	109,200.41
Provision for contingencies, etc.	107,636.54	332,981.76
Sinking fund	131,552.72	132,343.09
TOTAL COST OF POWER	1,143,477.35	1,432,266.41
Amount appropriated from contingencies reserve of the system and applied in reduction of the cost of power		
Net total	1,143,477.35	1,432,266.41
REVENUE from municipalities at interim rates, from rural consumers and from private customers under flat rate contracts	1,145,031.55	1,454,080.66
Net balance credited or charged to municipalities under cost contracts	1,554.20 Credited	21,814.25 Credited
Capital investment	14,332,937.23	15,325,411.00
*Exchange included in above total of interest		

RESPECTING THE SYSTEMS OF THE COMMISSION

SYSTEM

1930	1931	1932	1933	1934
$ c.	$ c.	$ c.	$ c.	$ c.
522,732.86	637,903.94	698,627.59	777,050.62	833,980.26
934,766.36	981,514.88	918,978.04	761,603.57	724,389.50
913,872.57	938,745.56	968,995.87	894,253.67	913,406.78
214,924.91	241,193.70	248,330.65	227,793.09	242,903.39
115,160.41	110,668.22	119,387.64	83,188.62	84,924.08
158,835.47	167,272.84	171,432.37	173,029.78	174,813.02
2,860,292.58	3,077,299.14	3,125,752.16	2,916,919.35	2,974,417.03
				115.28
2,860,292.58	3,077,299.14	3,125,752.16	2,916,919.35	2,974,301.75
3,051,987.02	3,232,921.80	3,199,177.07	2,920,450.19	3,084,008.59
191,694.44	155,622.66	73,424.91	3,530.84	109,706.84
117,244.91	136,927.20	48,122.89	1,281.64	
74,449.53	18,695.46	25,302.02	2,249.20	109,706.84
20,917,182.90	21,570,767.11	21,060,823.96	19,372,833.44	19,851,622.12
		41,389.17	48,908.42	62,461.30

SYSTEM

1930	1931	1932	1933	1934
$ c.	$ c.	$ c.	$ c.	$ c.
474.00				
225,693.87	217,397.15	203,224.26	214,729.82	215,991.04
655,340.84	879,477.46	1,017,730.35	972,869.43	912,622.62
112,798.56	151,173.65	147,471.19	149,518.82	160,490.28
346,252.43		132.36	869.29	1,140.37
137,011.32	135,813.13	137,066.04	140,993.98	148,323.24
1,477,571.02	1,383,861.39	1,505,624.20	1,478,981.34	1,438,567.55
		143,499.15	41,359.65	
1,477,571.02	1,383,861.39	1,362,125.05	1,437,621.69	1,438,567.55
1,481,978.47	1,339,046.63	1,235,438.17	1,380,099.79	1,383,066.52
4,407.45 Credited	44,814.76 Charged	126,686.88 Charged	57,521.90 Charged	55,501.03 Charged
17,645,796.31	18,406,363.39	18,480,738.51	18,630,772.18	18,679,610.73
		100,968.00	58,865.89	

Maximum Consumption Charge

The Commission has found that the maximum economic limit of the first domestic use throughout the Province is 6 cents per kilowatt-hour. It has been decided therefore that in all rural power districts where the first consumption rate exceeds 6 cents per kilowatt-hour, this rate will be reduced to a maximum of 6 cents per kilowatt-hour. The maximum second rate of 2 cents per kilowatt-hour applies to all districts.

Third Consumption Rate

During the year the Commission made available for rural consumers a special rate for long hour uses of power by rural consumers. This particularly affects under-earth heating (hot-beds) and heating of water. Where the use of power may be obtained from the present equipment, a third follow-up rate of 0.75 cents gross is given in all districts. The first rate remains unchanged, except that, as pointed out above, it is subject to a maximum of 6 cents per kilowatt-hour, and the kilowatt-hours to be charged at the first rate remain unchanged. The number of kilowatt-hours to be charged at the second rate varies both with the class of service and the first kilowatt-hour rate. The following is the schedule. It shows the class of service, the number of kilowatt-hours per month to be charged for at the first rate, and the number of kilowatt-hours at the second rate according to the governing first rate.

SCHEDULE—FOR EACH CLASS OF RURAL SERVICE—OF KILOWATT-HOURS PER MONTH TO BE CHARGED FOR AT THE FIRST CONSUMPTION RATE AND AT THE SECOND CONSUMPTION RATE

All kilowatt-hours in excess of the sum at the first and second rates to be billed at 0.75 cents per kilowatt-hour

Class of rural service	Number of kw.-hrs. per month at first energy rate	Number of kw-hrs. per month at second energy rate				
		Where first energy rate in district is:				
		more than 5 cents	4.1 cents to 5 cents	3.1 cents to 4 cents	3 cents	less than 3 cents
1B	30	45	60	75	105	120
1C	30	120	150	180	240	270
2A	30	45	60	75	105	120
2B	30	120	150	180	240	270
3	42	108	138	168	228	258
4	70	180	230	280	380	430
5	70	180	230	280	380	430
6	126	324	414	504	684	774
7	210	540	690	840	1140	1290

It is estimated that the total saving to rural consumers on account of giving free power for the three uses above set out will amount to approximately $64,000 per year.

It is estimated that the reduction of the first consumption rate to a maximum of 6 cents per kilowatt-hour will mean a saving of approximately $6,400 per year to the rural consumers so affected.

Based on consumption figures for 1934, it is estimated that the rate reduction involving a new third rate of 0.75 cents will reduce the existing accounts of rural consumers throughout the Province by an amount of approximately $30,000 per year.

Water Heaters

During the period November 1, 1933, to October 31, 1934, there were installed 7,848 water heaters, having an average capacity of 600 watts per heater. The total load is, therefore, 4,708.8 kilowatts, or 6,310 horsepower. There were also approximately 900 booster water heaters installed, having an average capacity of 2 kilowatts, or a total capacity of 1,800 kilowatts, or 2,400 horsepower. The estimated annual consumption for booster and flat rate water heaters is 43,000,000 kilowatt-hours.

Electric Ranges

It is estimated that during the year 1934, 3,000 electric ranges were installed. These ranges have an average demand of 1 horsepower per range, and it is estimated that the annual consumption on these additional ranges amounts to 7,200,000 kilowatt-hours.

Steam Electric Boilers

In the process of paper-making—one of the most important industries of the Province—much coal-produced steam has been utilized heretofore in drying the paper as it passed over large steam cylinders before being assembled in rolls for shipment. When a serious over-supply of power began to come into the various systems—chiefly the Niagara—arrangements were made for the resale of some part of this surplus to the Gatineau Company at a price competitive with coal for the production of steam by electrically heated boilers. Other paper mills, extending across the Province from Cornwall to Thunder Bay, have become customers for steam-electric power. In most cases the plant utilized in steam production is installed by the Hydro-Electric Power Commission, and remains the property of the Commission. The revenue from this utilization of surplus power, which would otherwise have remained unused, was $809,386 during the year under review. The quantity used, total revenue, and rate obtained, were as follows:—

POWER SOLD FOR STEAM GENERATION—NOVEMBER 1, 1933 TO OCTOBER 31, 1934

System and customer	Contract amount	Total energy delivered	Total revenue	Rate
	horsepower	kw-hrs.	$ c.	mills
Niagara system				
Canadian International Paper Company (Gatineau Power Company)	45,000 to 55,000	348,993,867 126,526,000	244,295.69 94,894.50	0.7 0.75
		475,519,867	339,190.19	
Interlake Tissue Mills Company Limited	10,724	19,799,023	14,849.27	0.75
Norton Co.	800	1,863,840	3,727.63	2.0
Ontario Paper Co.	93,834	424,315,089	212,157.52	0.5
Provincial Paper Limited	11,394	24,659,635	18,494.71	0.75
Total Niagara system		946,157,454	588,419.32	
Eastern Ontario System				
Howard Smith Paper Mills Limited	13,405	28,249,500	14,124.75	0.5
Canadian International Paper Company (Gatineau Power Company)		40,916,300	28,641.41	0.7
Total Eastern Ontario system		69,165,800	42,766.16	

(*table continued on next page*)

POWER SOLD FOR STEAM GENERATION—NOVEMBER 1, 1933 TO OCTOBER 31, 1934—*continued*

System and customer	Contract amount	Total energy delivered	Total revenue	Rate
Thunder Bay System	horsepower	kw-hrs.	$ c.	mills
National Trust Company (Great Lakes Paper Company)	20,107	52,456,000	26,228.00	0.5
Provincial Paper Limited	32,131	130,975,000	72,036.25	0.55
Thunder Bay Paper Company (Approx.)	8,000	24,169,714	12,084.85	0.5
Total Thunder Bay system		207,600,714	110,349.10	
Northern Ontario Properties				
Abitibi Power & Paper Company (Iroquois Falls)	32,131	82,640,800	53,716.52	0.65
Abitibi Power & Paper Company (Smooth Rock Falls)	52,279	19,220,000 373,000	14,415.00 279.75	0.75
Less reduction by 50% of the cost of power used during the initial testing period, Aug. 1-5, 1934		18,847,000	14,135.25	
Total Northern Ontario properties		101,487,800	67,851.77	
Total All Systems		1,324,411,768	809,386.35	

CONSTRUCTIONAL ACTIVITIES

The basis of constructional activity on new hydraulic plants and extensions has been the increase in the value of gold per ounce throughout the civilized world. This has brought about the mining of quantities of marginal ore in developed mines and the opening up of many mines that could not have been operated when gold was worth $20.00 an ounce. The estimated tonnage of some of these new mines in process of development indicates a rapidly growing field for the sale of electric energy throughout Northern Ontario. The Commission is in a position to supply that energy on favourable terms because of the acquisition by the Government of the Abitibi Canyon plant.

The installation of the second 48,500-kv-a. generator at the Abitibi Canyon development has been completed, and three 110,000-volt transformer stations have been built in Northern Ontario. At Kirkland Lake a 28,500-kv-a. transformer station has been installed to supply power to the Canada Northern Power Corporation, and a 4,500-kv-a. transformer station in Powell Township for a power supply to the Matachewan area. A third transformer station, having a capacity of 39,000 kv-a., and two 25,000-kw. electric steam generators have been installed at the Abitibi Power and Paper Company's plant at Smooth Rock Falls, to supply the Company with secondary power for the generation of steam. Nearly one hundred miles of 132,000-volt transmission lines have been constructed to transmit power from the Abitibi Canyon development to customers in the district.

Rat Rapids Development

A small hydro-electric development is under construction at Rat Rapids, at the outlet of lake St. Joseph, and is designed to supply power to mining developments north of the lake in the District of Patricia. This power plant is seven hundred and thirty miles as the crow flies from Toronto, and in that great area north-west of lake Superior to the Manitoba boundary, it is probable that a number of similar small plants will have to be located. The cost of these plants will be returned by amortization carried for periods so short as to be well within the life of the mines they are called into existence to serve.

All the developments in the region of the Province lying to the north and west of the line of the French river and lake Nipissing, except those of the Thunder Bay system, are the property of the Province, and are operated by this Commission as agent of the Government. Any losses sustained in operation heretofore have been recouped from the provincial treasury; profits which may accrue hereafter will become revenue of the provincial treasury.

The Commission, as agent of the Department of Lands and Forests of Ontario, also carried through certain navigation improvements on the Root river, comprising three marine railways, channel improvements, and about three and a half miles of standard gauge railway.

At the Howard Smith Paper Mills at Cornwall a 20,000-kv-a. transformer station and a 20,000-kw. electric steam generator have been installed and placed in operation. A transmission line was built from Ottawa to the Cornwall transformer station to provide a suitable power supply, at the latter point, on the termination of the supply from the Cedar Rapids Transmission Company.

New Rural Consumers

About one hundred and ninety miles of primary rural lines have been constructed and over eighteen hundred new consumers have been supplied with power during the year.

A contract was let for, and construction is well under way on, an addition to the present administration building on University avenue.

OPERATING CONDITIONS

The operation of the various systems has measured up to the customary standard of the Commission; in spite of the severe weather conditions during the winter of 1933-34, interruptions were relatively few. Equipment failures of sufficient importance to mention were confined to the armature windings of generators No. 2 and No. 5 at the Ontario Power plant, and No. 2 synchronous condenser at Leaside.

Generating capacity was somewhat reduced on the Georgian Bay system and at Chats Falls due to low stream flow. On the Georgian Bay system the resulting lack of energy was offset by the transfer of power from Niagara system through the Hanover frequency-changer station.

Due to sub-normal precipitation and the lowering of Wanapitei lake for mining interests, some difficulty was experienced in maintaining sufficient stream flow in the Wanapitei river for the Commission's plants, and it was necessary to remove by blasting some obstructions above the Wanapitei dam. By the end of the fiscal year conditions had improved, and the storage basins were replenished. On all other systems water conditions were satisfactory.

FINANCIAL SUMMARIES

The financial statements embodied in this Report are presented in two main divisions, namely, a division—Section IX—which deals chiefly with the operations of the Commission in the generation, transformation and transmission of electrical energy to the co-operating municipalities and to certain large industries; and a division—Section X—which deals with the various operations of the municipal electric utilities in the localized distribution of electrical energy to consumers. In Section IX, "Rural Operating" reports are also given, which summarize the results of the local distribution of rural electrical service by the Commission to the individual consumers in rural power districts. This work is performed by the Commission on behalf of the respective townships co-operating to provide rural service.

Capital Investment

The total investment of the Hydro-Electric Power Commission of Ontario in power undertakings and hydro-electric railways is $287,387,957.03, exclusive of government grants in respect of construction of rural power districts' lines; and the investment of the municipalities in distributing systems and other assets is $110,836,805.08, making in power and hydro-electric railway undertakings a total investment of $398,224,762.11.

The following statement shows the capital invested in the respective systems, districts and municipal undertakings:

Niagara system	$208,626,540.68
Georgian Bay system	8,427,278.77
Eastern Ontario system	19,851,622.12
Thunder Bay system	18,679,610.73
Manitoulin rural power district	35,472.86
Nipissing rural power districts	22,751.21
Northern Ontario properties	25,121,103.24
Hydro-Electric railways	2,173,663.59
Office and service buildings, construction plant, inventories, etc.	4,449,913.83
	$287,387,957.03
Municipalities' distribution systems—all systems	91,675,564.93
Other assets of municipal Hydro utilities (exclusive of $29,274,340.46 of municipal sinking-fund equity in H-E.P.C. system)—all systems	19,161,240.15
	$398,224,762.11

Reserves of Commission and Municipal Electric Utilities

The total reserves of the Commission and the municipal electric utilities for sinking fund, renewals, contingencies and insurance purposes amount to $138,392,201.38, made up as follows:

Niagara system	$55,092,547.51
Georgian Bay system	3,153,898.87
Eastern Ontario system	5,984,350.35
Thunder Bay system	3,521,436.40
Manitoulin rural power district and Nipissing rural power districts	12,714.03
Northern Ontario properties	868,608.88
Office and service buildings and equipment	750,935.63
Bonnechere storage	5,417.39
Total reserves in respect of Commission's properties	$69,389,909.06
Hydro-Electric railways (Guelph)	134,722.21
Insurance, workmen's compensation and staff pensions	4,690,162.53
Total reserves of the Commission	$74,214,793.80
Total reserves and surplus of municipal electric utilities	64,177,407.58
Total Commission and municipal reserves	$138,392,201.38

The total reserves of the Commission increased in 1934 by $4,781,533.55 over the total for 1933, which was $69,433,260.25. The net increase in total reserves was, in 1934, less than in some former years.

The consolidated balance sheet of the municipal electric utilities, on page 284, shows a total cash balance of $2,215,914.31, and bonds and other investments of $2,382,446.41. The total surplus in the municipal books now amounts to $44,744,584.69, in addition to depreciation and sundry other reserves aggregating $19,432,822.89; these two amounts making the total of $64,177,407.58 shown in the above table. The net increase in the municipal utilities' local reserves and surplus was $4,440,587.82 and the net increase in the total of Commission and municipal reserves for the year was $9,222,121.37. The increase of reserves since October 31, 1924, has been $99,351,663.06.

Revenue of Commission

The revenue of the Commission at interim rates from the municipal utilities operating under cost contracts, from customers in rural power districts and from other customers with whom—on behalf of the municipalities—the Commission has special contracts, all within the Niagara, Georgian Bay, Eastern Ontario and Thunder Bay systems, Manitoulin Island and Nipissing rural power districts aggregates $28,213,252.72. The revenue of the Commission from customers served by the Northern Ontario properties, which are held and operated in trust for the Province, is $1,238,311.00, making a total of $29,451,563.72.

Summarized operating results of these systems and rural power districts, and of the Northern Ontario properties, follow:

SYSTEMS OF THE COMMISSION

Revenue from municipal electric utilities and other power customers	$25,380,581.20	
Revenue from customers in rural power districts	2,832,671.52	
Total revenue, systems and rural		$28,213,252.72
Operation, maintenance, administration, interest and other current expenses	$26,283,475.40	
Reserves for sinking fund, renewals, contingencies and obsolescence provided in the year	4,823,318.99	
Total expenses and reserves	$31,106,794.39	
Less: Appropriated from contingencies reserve	2,869,943.64	
Net total		28,236,850.75
Net balance charged to municipalities under cost contracts		$ 23,598.03

NORTHERN ONTARIO PROPERTIES

Revenue from customers		$ 1,238,311.00
Operation, maintenance, administration, interest and other current expenses	$1,355,756.05	
Reserves for renewals and contingencies	220,309.02	
Total expenses and reserves		1,576,065.07
Balance, which is charged to Province of Ontario, subject to repayment out of any future surplus earnings of the properties		$ 337,754.07

Rural Electrical Service

There is now rather more than $18,300,000 invested in the rural power district systems established by the Commission. Towards this rural work the

Ontario Government, pursuant to its policy of promoting the basic industry of agriculture, has, in the form of grants-in-aid, contributed 50 per cent of the costs of transmission lines and equipment, or some $9,000,000.

Segregated from the summary of the Commission's operating revenues as a whole, which has been presented above, the data relating to rural power districts show in the aggregate a revenue from rural customers of $2,832,671.52 which was $76,295.20 less than the total cost, including reserve requirements computed at the customary rates.

RURAL POWER DISTRICTS—OPERATIONS FOR THE YEAR 1934

	Niagara system	Georgian Bay system	Eastern Ontario system	Thunder Bay system	Manitoulin rural power district	Nipissing rural power districts	Totals
	$ c.	$ c.	$ c.	c.	$ c.	$ c.	$ c.
Cost of power as provided to be paid under PowerCommission Act	831,512.85	102,384.33	183,714.46	3,177.88	3,750.00	4,399.67	1,128,939.19
Cost of operation, maintenance and administration	529,535.07	58,267.17	122,170.71	3,531.59	2,313.61	2,013.95	717,832.10
Interest	301,774.53	36,986.15	82,273.43	2,818.50	1,888.53	998.33	426,739.47
Renewals	259,028.24	30,557.10	65,611.42	2,280.75	1,288.67	840.14	359,606.32
Obsolescence and contingencies	129,514.12	15,278.55	32,805.71	1,140.37	644.33	420.07	179,803.15
Sinking fund	68,856.46	8,450.52	17,540.50	600.41	373.52	225.08	96,046.49
Total expenses	2,120,221.27	251,923.82	504,116.23	13,549.50	10,258.66	8,897.24	2,908,966.72
Revenue from customers	2,080,385.53	242,562.04	479,968.71	11,793.92	8,235.38	9,725.94	2,832,671.52
Balances credited to districts or charged to municipalities comprising districts:							
Net credit, all districts						828.70	828.70
Net charge, all districts	39,835.74	9,361.78	24,147.52	1,755.58	2,023.28		77,123.90
Net charge, all systems							76,295.20

MUNICIPAL ELECTRIC UTILITIES

The following is a summation of the year's operation of the local electric utilities conducted by municipalities receiving power under cost contracts with the Commission:

Total revenue collected by the municipal electric utilities		$31,970,390.08
Cost of power	$19,591,887.79	
Operation, maintenance and administration	5,093,212.46	
Interest	2,204,994.25	
Sinking fund and principal payments on debentures	2,358,169.12	
Depreciation and other reserves	2,036,637.33	
Total		31,284,900.95
Surplus		$ 685,489.13

The following statements respecting the several systems and the Northern Ontario properties summarize the financial features of their operation. The municipalities included in each system, the territories served by each system, and the power supplies provided for each system, are shown on the map at the end of the Report and in tabular statements in the body of the Report.

Niagara System

The total capital invested by the Commission on behalf of the co-operating municipalities of the Niagara system amounts to $208,626,540.68. This amount includes the investment in the power properties purchased from the Dominion Power and Transmission Company (which have been merged with, and now form part of the Niagara system), also the Commission's share of the generating plant at Chats Falls, together with the transformer and switching stations at that point and the transmission lines from the Ottawa river to the Niagara system. The accumulated reserves for renewals, obsolescence, contingencies and sinking fund, aggregate $55,092,547.51.

From customers in the rural power districts of this system the revenue received by the Commission for the year was $2,080,385.53, and the total cost of supplying service was $2,120,221.27, leaving a balance of $39,835.74, which has been charged to the rural power districts of this system.

With respect to the electric utilities of the various urban municipalities of the Niagara system served under cost contracts, the cost of power as adjusted by the Commission at the close of the year was $123,106.85 more than the total amount collected at the interim rates and this sum has been charged to the municipal utilities.

The total revenue of the municipal electric utilities served by this system was $26,191,701.88, an increase of $1,167,263.19 as compared with the previous year. After meeting all expenses in respect of operation, including interest, setting up the standard depreciation reserve amounting to $1,655,012.39, and providing $2,161,666.45 for the retirement of instalment and sinking fund debentures, the total net surplus for the year for the municipal electric utilities served by the Niagara system amounted to $239,441.59.

Georgian Bay System

The total capital invested by the Commission on behalf of the co-operating municipalities of the Georgian Bay system amounts to $8,427,278.77. The accumulated reserves for renewals, obsolescence, contingencies and sinking fund aggregate $3,153,898.87.

From customers in the rural power districts of this system the revenue received by the Commission for the year was $242,562.04, and the total cost of supplying service was $251,923.82, leaving a balance of $9,361.78, which has been charged to the rural power districts of this system.

With respect to the electric utilities of the various urban municipalities of the Georgian Bay system served under cost contracts, the cost of power supplied by the Commission during the year was $95,695.11 less than the total amount collected at the interim rates and this sum has been credited to the municipal utilities.

The total revenue of the municipal electric utilities served by this system was $1,169,921.21, an increase of $34,665.86 as compared with the previous year. After meeting all expenses in respect of operation, including interest, setting up the standard depreciation reserve amounting to $74,603.00, and providing $54,745.02 for the retirement of instalment and sinking fund debentures, the total net surplus for the year for the municipal electric utilities served by the Georgian Bay system amounted to $86,378.01.

Eastern Ontario System

The total capital invested by the Commission on behalf of the co-operating municipalities of the Eastern Ontario system amounts to $19,851,622.12. The accumulated reserves for renewals, obsolescence, contingencies and sinking fund aggregate $5,984,350.35.

From customers in the rural power districts of this system the revenue received by the Commission for the year was $479,968.71, and the total cost of supplying service was $504,116.23, leaving a balance of $24,147.52, which has been charged to the rural power districts of this system.

With respect to the electric utilities of the various urban municipalities of the Eastern Ontario system served under cost contracts, the cost of power supplied by the Commission during the year was $133,854.36 less than the total amount collected at the interim rates and this sum has been credited to the municipal utilities.

The total revenue of the municipal electric utilities served by this system was $3,308,659.41, an increase of $165,809.26 as compared with the previous year. After meeting all expenses in respect of operation, including interest, setting up the standard depreciation reserve amounting to $184,205.05, and providing $125,546.87 for the retirement of instalment and sinking fund debentures, the total net surplus for the year for the municipal electric utilities served by the Eastern Ontario system amounted to $294,876.54.

Thunder Bay System

The total capital invested by the Commission on behalf of the co-operating municipalities of the Thunder Bay system amounts to $18,679,610.73. The accumulated reserves for renewals, obsolescence, contingencies and sinking fund aggregate $3,521,436.40.

From customers in the rural power districts of this system the revenue received by the Commission for the year was $11,793.92, and the total cost of supplying service was $13,549.50, leaving a balance of $1,755.58, which has been charged to the rural power districts of this system.

With respect to the electric utilities of the various urban municipalities of the Thunder Bay system served under cost contracts, the cost of power supplied by the Commission during the year was $53,745.45 more than the total amount collected at the interim rates and this sum has been charged to the municipal utilities.

The total revenue of the municipal electric utilities served by this system was $1,300,107.58, a decrease of $25,190.11 as compared with the previous year. After meeting all expenses in respect of operation, including interest, setting up the standard depreciation reserve amounting to $39,804.75, and providing $16,210.78 for the retirement of instalment and sinking fund debentures, the total net surplus for the year for the municipal electric utilities served by the Thunder Bay system amounted to $64,792.99.

NORTHERN ONTARIO PROPERTIES

In accordance with the agreement under which the Commission holds and operates the Northern Ontario properties in trust, for the Province, the properties are for purpose of financial administration treated as one unit. The total capital invested by the Commission on behalf of the Province in the Northern Ontario properties is $25,121,103.24, and the accumulated reserves for renewals, obsolescence and contingencies aggregate $868,608.88.

The costs of operation for the year, including interest and the sum of $220,309.02 set aside to renewals and contingencies reserves, were $1,576,065.07. The costs exceeded the revenues from customers supplied with power from the Northern Ontario properties, by $337,754.07, which amount, in accordance with the governing agreement, is charged to the Province, subject to repayment out of any future surplus earnings of the properties.

THE ANNUAL REPORT

The Table of Contents, pages xxv and xxvi, conveys a good understanding of the scope of the matters dealt with in the Report, to which there is also a comprehensive Index. To those not conversant with the Commission's Reports the following notes will be useful.

In Section II, pages 5 to 57, dealing with the Operation of the Systems, are a number of interesting diagrams showing, graphically, the monthly loads on the several systems and districts. Tables are also presented showing the amounts of power taken by the various municipalities in October during the past three years.

The rural distribution work of the Commission has proved of widespread interest and special reference to this is made in Section III, on pages 65 to 84. The power distributed to rural districts is, and possibly must always be, but a relatively small proportion of the power distributed by the Commission. The supplying of electrical service in rural areas, and especially on the farm, has, however, been of great economic benefit to Ontario. The Provincial Government grants-in-aid of the capital cost of this work have been of value to agricultural activities, and have assisted the Commission to extend rural transmission lines to many areas.

In Sections IV, V and VI will be found information respecting progress of work on new power developments and on transmission system extensions, together with photographic illustrations.

About one-half of the Report is devoted to financial and other statistical data which are presented in two Sections IX and X.

Section IX presents in summary form the financial statements relating to the operations of the Commission chiefly in the generation, transformation and transmission of electrical energy to the co-operating municipalities. It is introduced by an important explanatory statement which appears on pages 133 to 137, to which special reference should be made.

Section X presents in summary form the financial statements relating to the operations of the municipalities in the localized distribution of electrical energy to consumers. It also contains details of the costs of electrical energy to consumers in the various municipalities and tabular statements of the rates in force which have produced these costs. An explanation of the various tables and statements is given at the commencement of this Section on pages 277 to 279, and a special introduction to Statement "D," which relates to the cost of electrical service in Ontario, together with a diagram, appears on pages 402 to 405.

In its Annual Reports the Commission aims to present a comprehensive statement respecting the activities of the whole undertaking under its administration. Explanatory statements are suitably placed throughout the Report. The Commission receives many letters asking for general information respecting its activities, as well as requests for specific information concerning certain phases of its operations. In most cases these enquiries can satisfactorily be answered by simply directing attention to information presented in the Annual Report of the Commission.

* * *

During the year of which this summary is a record, the personnel of the Commission has been entirely changed. When the year began on 1st November, 1933, the Commissioners were Honourable J. R. Cooke (Chairman), Mr. C. Alfred Maguire (Vice-Chairman), and Right Honourable Arthur Meighen. Mr. Meighen resigned on May 18, 1934, and by Order-in-Council, dated July 11, 1934, the other two members of the Commission were retired from office, Mr. T. Stewart Lyon (Chairman), Honourable Arthur W. Roebuck and Honourable T. B. McQuesten being appointed in their stead, the latter two serving without salary.

Extensive changes have been made in the personnel of the chief officials of the Commission, among those retired were Mr. F. A. Gaby, chief engineer, Honourable I. B. Lucas, general solicitor, Mr. A. V. White, consulting engineer and Mr. E. A. Hugill, head of the Right-of-Way department. Mr. J. W. Gilmour, treasurer, retired on pension immediately before the present Commission assumed office, and Mr. John Littlejohn retired on pension shortly after the present Commission assumed office. Mr. Littlejohn had charge of the Insurance department of the Commission. The position of treasurer has not been filled. Mr. T. K. Jones, formerly assistant-treasurer, is now acting-treasurer. The duties of Mr. Gaby have been divided, for the most part, between Dr. T. H. Hogg, who has become engineer in charge of construction and operation, and Mr. R. T. Jeffery, who is in charge of municipal relations and power sales.

At the close of the fiscal year further changes in staff were pending, which it was believed would still further reduce the administrative cost, without any lessening of efficiency. Most of the officials slated for retirement have reached the age of 60 years and were entitled to retiring allowances under the system of contributory pensions, which has been in operation since 1923.

It is the opinion of the undersigned that these changes have promoted rather than retarded the spirit of goodwill and co-operation that must exist in an organization so complicated and so large as that of the Hydro-Electric Power Commission of Ontario, if the best possible service is to be rendered by the members of the staff.

There is evidence that in their dealings with the local power commissions, with private consumers of energy and with the public generally, the members of the staff in all departments have a firm grasp of the basic principle underlying the operations of the Commission, that of providing light and power at cost to all sections of the people of the Province. There will always be consumers with grievances to present to the officials and to the Commission for redress. Assurance can be given that such grievances will not be treated cavalierly, but will be enquired into, without prejudice, and settled with a desire to do justice in every case.

Since the closing of the books of the Commission for the year ending October 31, 1934, there has been a continuing increase in the power sales of the Commission. It has not been so great as the optimistic prophets of former years believed it would be, but it has shown a steady upward curve. This has been true especially in Northern Ontario, where much of the increase in the output of gold mining companies has been due to the provision made by the Commission for the sale of power at prices materially below those obtaining before the Commission entered the field in competition for gold mining power loads.

Respectfully submitted,

T. Stewart Lyon,

Chairman

TORONTO, ONTARIO, March 31st, 1935.

T. STEWART LYON, ESQ.,
Chairman, The Hydro-Electric Power Commission of Ontario,
Toronto, Ontario.

Sir,—I have the honour to transmit herewith the Twenty-seventh Annual Report of The Hydro-Electric Power Commission of Ontario for the fiscal year ended October 31st, 1934.

I have the honour to be,
Sir,
Your obedient servant,

W. W. POPE,
Secretary

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TWENTY-SEVENTH ANNUAL REPORT

OF THE

Hydro-Electric Power Commission of Ontario

SECTION I

LEGAL

AT the 1934 Session of the Legislative Assembly of the Province of Ontario an Act to amend The Power Commission Act, entitled The Power Commission Act 1934, was passed. It is reproduced in full in Appendix I of this Report.

The agreements between The Hydro-Electric Power Commission of Ontario and the municipalities and corporations mentioned in the list hereunder given were approved by Order-in-Council, dated the 16th day of November, 1934.

VILLAGES	
Cobden	Sept. 6, 1934

TOWNSHIPS	
Bromley	June 23, 1934
Carrick	Oct. 16, 1933
Culross	Oct. 17, 1933
Dalhousie and North Sherbrooke	Dec. 15, 1933
London	Sept. 7, 1933
Mountain	Jan. 16, 1934
Thorah	Sept. 8, 1933

CORPORATIONS	
American Cyanamid Company	Dec. 16, 1933
Canadian Industries Limited	May 31, 1933
Davis Leather Company Limited	Oct. 1, 1933
His Majesty The King, represented by the Deputy Minister of National Defence of the Dominion of Canada—Contract "A"	Sept. 1, 1933
His Majesty The King, represented by the Deputy Minister of National Defence of the Dominion of Canada—Contract "B"	Sept. 1, 1933
Howard Smith Paper Mills Limited—5,000 H.P.	Mar. 5, 1934
Howard Smith Paper Mills Limited—Surplus Power	Mar. 5, 1934
Howard Smith Paper Mills Limited—2,400 H.P.	June 20, 1934

RIGHT-OF-WAY

Rural Power Lines

Wood-pole lines and extensions were constructed in the following rural power districts during the year: Alexandria, Aylmer, Bala, Barrie, Baysville, Beamsville, Beaumaris, Beaverton, Belleville, Brant, Chesterville, Cobourg, Fenelon Falls, Goderich, Grantham and Homer, Gravenhurst, Haldimand, Hawkestone, Huntsville, Innisfil, Iroquois, Kingston, Lakefield, Lindsay, London, Markdale, Martintown, Maxville, Millbrook, Napanee, Niagara, Norwood, Omemee, Oshawa, Owen Sound, Peterboro, Preston, Simcoe, Smiths Falls, Sparrow Lake, St. Thomas, Strathroy, Trenton, Utterson, Uxbridge, Walsingham, Waterdown, Welland, Wellington, Williamsburg.

Where possible, rural power lines are constructed on public highways or roads, but in a few cases, in order to avoid cutting trees or owing to special local conditions, lines have been placed on private property. In such cases the necessary right-of-way has been acquired and compensation made for tree trimming or cutting. In a number of cases, due to highway construction improvement, it has been necessary to re-locate existing pole lines. Satisfactory arrangements have been made with the Department or Commission having jurisdiction over these roads.

High- and Low-Tension Wood-Pole Lines

Right-of-way easements and tree trimming rights have been secured for the construction of various wood-pole lines listed in the following table:

TRANSMISSION, DISTRIBUTION AND RURAL LINES ON WHICH CONSTRUCTION WORK WAS DONE DURING THE YEAR ENDING OCTOBER 31, 1934

Albion Park junction to Woodbridge distributing station.
Aylmer junction to Port Stanley distributing station.
Ayr junction to Ayr distributing station.
Ayr junction to Drumbo distributing station.
Baden distributing station to Wellesley.
Brantford Sand and Gravel junction to L. E. & N. railway junction.
Burlington distributing station to National Fireproofing junction.
DeCew Falls generating station to Bartonville switching station.
DeCew Falls generating station to Thorold junction.
Derby Mills junction to Hepworth distributing station.
Dundalk junction to Priceville distributing station.
Erbs junction to Hanover frequency changer station.
Essex transformer station to Maidstone junction.
Eugene Phillips junction to Brockville distributing station.
Fletcher junction to Merlin distributing station.
Fletcher junction to Tilbury distributing station.
Forfar distributing station to Westport.
Fraxa junction to Orangeville distributing station.

High- and Low-Tension Wood-Pole Lines—Continued

Glendale junction to Lambeth junction.
Islington junction to Weston junction.
London transformer station to Strathroy.
Mount Joy distributing station to Ringwood distributing station.
Napanee rural station to Bath.
Newcombe junction to Welcome junction.
Nipissing power house to Bingham Chute junction.
Norwich junction to Tillsonburg.
Paris to Ayr junction.
Picton junction to Wellington distributing station.
Prince Albert junction to Como junction.
Ruthven junction to Leamington distributing station.
Tara distributing station to Port Elgin junction.
Tiffin junction to Midland distributing station.
Waterloo rural station to Bridgeport.
Waubaushene switching station to Midland distributing station.
Wellington distributing station to Picton distributing station.
Williamsburg distributing station to Winchester distributing station.
Winchester junction to Williamsburg distributing station.
Woodbridge distributing station to Kleinburg distributing station.
Woodstock transformer station to Norwich junction.
York junction to Kipling Avenue junction.

Substation Sites

Two sites were purchased during the year for Marmora distributing station and Louth distributing station.

High-Voltage Lines

Further settlements for right-of-way, tree trimming rights and damages in connection with high-voltage lines were made. The lines involved in this work include the 220,000-volt line from the Quebec boundary to Chats Falls, over which power from the Beauharnois Company and the McLaren Company is transmitted to connect with the 220,000-volt lines from Chats Falls to the Niagara system at Toronto, and the 110,000-volt 60-cycle line from Ottawa to Cornwall.

In a number of cases satisfactory settlements could not be reached by negotiation and awards were made under arbitration proceedings.

Northern Ontario Properties

Negotiations with the Sylvanite Gold Mining Company for a site for a transformer and distributing station at Kirkland Lake are proceeding. With respect to the Iroquois Falls to Kirkland Lake transmission line, 26 settlements were made and negotiations respecting others are in hand. In certain cases poles and anchors have been placed on rough land, the owners of which have not yet been traced. In connection with the Kirkland Lake-Matachewan line, easements are being prepared to enable distribution lines to reach various mining companies.

General

Additional portions of the right-of-way of the Brantford and Hamilton Electric Railway were sold to the owners of adjoining properties. Practically all of this right-of-way has now been disposed of except portions at either end in connection with which negotiations are being carried on with the Department of Highways. It is hoped that these portions can be utilized for highway purposes.

Certain other lands not required by the Commission were sold.

SECTION II

OPERATION OF THE SYSTEMS

Operating Conditions

Low stream flow reduced the available capacity of the generating stations in the Georgian Bay system and of Chats Falls station. In the Georgian Bay system the situation was relieved by the transfer of power from the Niagara system through the frequency-changer station at Hanover. In the Niagara system there was sufficient surplus capacity so that the reduced capacity of Chats Falls caused no interference with service. In other systems stream flow conditions were generally satisfactory.

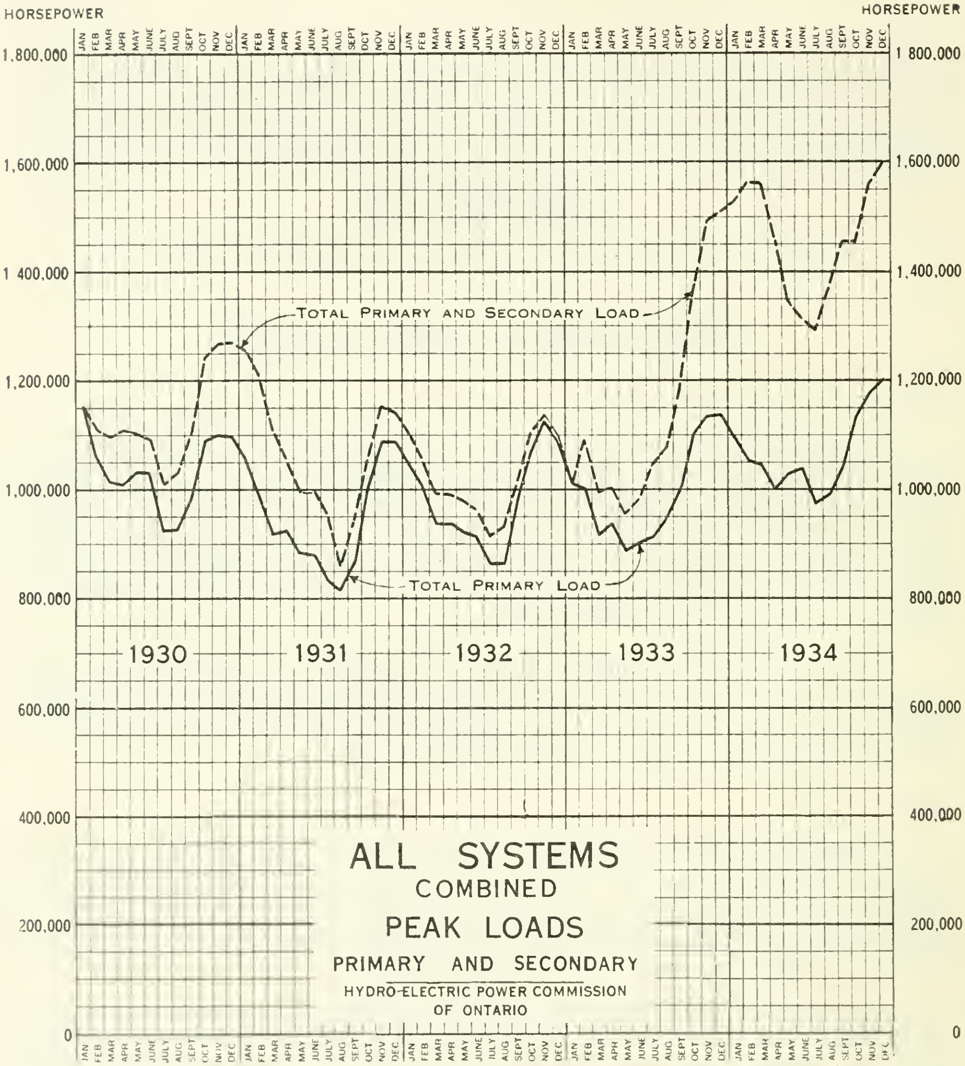
The extremely cold weather from the latter part of December, 1933, to the middle of February, 1934, caused a few interruptions to service in different parts of the Province due to the contraction and breakage of conductors, but the transmission lines in general stood up well.

Load Conditions

During the year the combined systems carried the largest load in their history. The yearly peak, i.e., the sum of the peak loads of all the systems, was 1,600,314 horsepower, 16.6 per cent in excess of the corresponding figure for last year. The total energy generated and purchased amounted to 6,419,998,863 kilowatt-hours, an increase of 39 per cent over 1933.

Unfortunately these large increases in total load do not reflect corresponding increases in revenue for they include large quantities of secondary power for which the revenue received is very much less than that received from primary power. Twenty-eight per cent of the total load was made up of secondary energy and the increases mentioned above are largely due to increases in that type of load. It will be apparent, then, that the primary load gives a better indication of revenue and industrial conditions than does the total load. For this reason the former has been given special prominence throughout this Report, which for the first time shows both the primary and total loads in graphic form.

From a study of the load data the following broad statement can be made concerning the trend of primary load: The downward trend of primary load commenced in the latter part of 1930, and continued throughout 1931 and 1932, reaching its lowest levels in the early part of 1933. During the spring and summer of 1933 there was a rapid recovery, which was referred to in last year's Report. The rate of increase was not so great during the latter part of 1933 and the early part of 1934, but rose again rapidly in the spring of 1934. In the



latter part of the year the rate of increase was again somewhat less. Over the complete period from the early part of 1933 to the end of 1934 there has been a general upward trend, but the rate of increase has been smaller than in normal times.

In many territories the result of this general upward trend has been a complete recovery of the lost load, in fact the primary load this year has generally exceeded the 1930 peaks. Unfortunately, however, this is not the case in the Niagara system as the graphic record clearly shows when allowance is made for the fact that the load of the Dominion Power and Transmission district which has been included from November 1, 1931, onward was not included in the 1930 peak.

It is not suggested that this statement of trend is clearly borne out by every one of the system primary load graphs, in fact both the table and the graphs contain what appear to be discrepancies and contradictions, some of which, however, are explainable and disappear upon closer study.

It has been customary to compare the current year's loads for the various systems and districts with the load for the previous year. In order to simplify this comparison in this Report, a table which shows both primary and total load, is here given. It will be noted that the figures show a wide variation in the gains from the preceding year. This is largely due to the fact that progress during the last two years has not been uniformly continuous. Under such circumstances, figures for increases over the corresponding month of the previous year are necessarily erratic—in some cases gains appear unduly favourable because the corresponding figure for the previous year was unduly low; in other cases the reverse is true.

COMPARISON OF LOADS

Showing the Per Cent Increase in 1934 Over the Corresponding Period for 1933

System	Fiscal Year 1934		December 1934	
	Yearly peak load Increase	Energy in kw-hrs. Increase	Monthly peak load Increase	Energy in kw-hrs. Increase
PRIMARY LOADS				
	Per cent	Per cent	Per cent	Per cent
Niagara 25-cycle	—0.2	8.0	2.5	4.2
Dominion Power & Transmission	7.4	14.4	4.4	1.2
Eastern Ontario	6.5	11.0	5.3	7.0
Georgian Bay	4.7	5.9	5.2	6.1
Thunder Bay	—1.6	1.4	27.3	39.8
Northern Ontario Properties:				
Nipissing district	2.7	2.7	2.7	3.0
Sudbury district	5.4	30.8	1.6	7.8
Patricia district	7.7	32.6	4.4	—1.0
Abitibi district	98.3	88.2	123.0	181.0
All systems	2.2	9.5	5.7	9.0
TOTAL SYSTEM LOADS—PRIMARY AND SECONDARY				
Niagara 25-cycle	12.2	35.2	1.5	—5.2
All other systems, total loads	31.2	54.2	17.2	22.7
All systems	16.6	39.2	5.4	1.3

Note—Minus sign indicates decreases.

The amount of power generated in each of the Commission's generating stations and the amount of power purchased from each source is shown herein in a table similar to that which has appeared in previous Reports.

TOTAL POWER GENERATED

HYDRO-ELECTRIC GENERATING PLANTS

Generating plants	Maximum normal plant capacity Oct. 31, 1934 horsepower	Peak load during fiscal year		Total output during fiscal year	
		1932-33 horse-power	1933-34 horse-power	1932-33 kilowatt-hours	1933-34 kilowatt-hours
Niagara system					
Queenston-Chippawa—Niagara river	500,000	461,126	455,764	1,834,328,000	2,028,891,000
"Ontario Power"—Niagara river	180,000	119,303	164,879	145,624,000	549,339,000
"Toronto Power"—Niagara river	150,000	70,375	136,729	64,521,000	245,698,000
Chats Falls (Ontario half)—Ottawa river	96,000	94,504	97,185	124,024,550	222,959,000
DeCew Falls—Welland Canal	50,000	42,091	47,450	97,082,300	120,348,300
Steam Plant—Hamilton	24,000	....	3,753	24,800	—1,869,200
Georgian Bay system					
South Falls—South Muskoka river	5,600	6,011	5,866	20,495,760	20,391,840
Hanna Chute—South Muskoka river	1,600	1,609	1,743	6,676,800	5,690,400
Trethewey Falls—South Muskoka river	2,300	2,145	2,145	8,925,600	8,258,400
Bala No. 1 and 2—Muskoka river	600	583	576	2,224,344	2,772,888
Big Chute—Severn river	5,800	5,791	5,791	16,396,920	19,740,840
Wasdells Falls—Severn river	1,200	1,227	1,139	3,403,240	3,599,520
Eugenia Falls—Beaver river	7,800	7,614	7,748	17,794,960	13,593,600
Hanover—Saugeen river	400	382	389	104,524	506,736
Walkerton—Saugeen river	500	503	476	1,307,100	1,900,800
Southampton—Saugeen river	300	0	0	0	0
Eastern Ontario system					
Sidney-Dam No. 2—Trent river	4,500	3,619	4,960	7,826,700	14,500,900
Frankford-Dam No. 5—Trent river	3,500	1,810	3,753	225,500	6,250,300
Meyersburg-Dam No. 8—Trent river	7,000	7,507	7,828	11,160,530	22,117,420
Hague's Reach-Dam No. 9—Trent river	4,500	4,625	5,295	7,245,700	12,502,030
Ranney Falls-Dam No. 10—Trent river	10,500	10,456	10,858	13,937,820	30,101,880
Seymour-Dam No. 11—Trent river	4,200	3,150	4,759	7,981,130	14,696,160
Heely Falls-Dam No. 14—Trent river	15,300	15,282	16,086	20,118,400	36,489,320
Auburn-Dam No. 18—Otonabee river	2,400	1,984	2,480	6,467,050	9,558,790
Fenelon Falls-Dam 30—Sturgeon river	1,000	938	1,046	1,410,300	1,176,550
High Falls—Mississippi river	3,000	3,117	3,264	4,263,720	7,325,640
Carleton Place—Mississippi river	400	375	228	11,848	840
Calabogie—Madawaska river	5,400	1,588	1,729	4,433,951	5,048,472
Galetta—Mississippi river	1,100	402	690	12,660	8,800
Thunder Bay system					
Cameron Falls—Nipigon river	73,500	48,700	73,100	115,494,000	269,658,000
Alexander—Nipigon river	50,000	48,200	53,300	173,030,400	221,205,600
Northern Ontario properties					
Nipissing district					
Nipissing—South river	2,100	2,366	2,279	4,728,040	6,392,080
Bingham Chute—South river	1,200	1,307	1,314	3,040,800	2,770,240
Elliott Chute—South river	1,700	1,910	1,944	3,989,000	2,916,200
Sudbury district					
Coniston—Wanapitei river	5,900	5,563	5,429	16,322,328	20,942,088
McVittie—Wanapitei river	2,900	2,882	2,882	12,076,344	17,013,624
Stinson—Wanapitei river	7,500	6,233	6,166	17,335,704	21,851,040
Patricia district					
Ear Falls—English river	4,000	2,627	2,828	10,679,000	14,160,500
Abitibi district					
Abitibi Canyon—Abitibi river	110,000	45,389	67,024	30,950,000	236,413,950
Total generated	1,347,700	*	*	2,815,674,823	4,214,921,548

*Because the peak loads on the various generating plants and purchased power sources usually occur at different times, the sum of the individual peak loads would not represent the sum of the peak loads on the systems. These, in the case of each system must relate to the maximum load occurring at any one time. Consequently, the column headed "Peak Load" is not totalled.

AND PURCHASED—ALL SYSTEMS

POWER PURCHASED

Power source	Contract amount horsepower Oct. 31, 1934	Total purchased	
		1932-33 kilowatt-hours	1933-34 kilowatt-hours
Canadian Niagara Power Co.—25-cycle	20,000	95,132,300	95,665,400
Gatineau Power Co.—25-cycle	260,000	1,074,498,785*	1,171,560,825*
Ottawa Valley Power Co	96,000	124,024,550	222,959,000
Beauharnois Light, Heat & Power Co	129,000	157,340,000	355,120,000
MacLaren Quebec Power Co	40,000	28,835,800	106,036,000
Canadian Niagara Power Co.—For D.P. & T. 66-cycle system¶	....	57,855,000	10,037,000
Welland Ship Canal†	....	....	46,400
Campbellford Water & Light Commission‡	....	....	....
Cedars Rapids Power Co.§	....	29,779,500	23,157,000
M. F. Beach Estate	500	831,600	980,800
Rideau Power Co	487	2,822,800	2,740,700
Ottawa & Hull Power & Mfg. Co	20,000	63,660,600	64,078,200
Gatineau Power Co.—60-cycle	42,000	128,241,500**	152,113,942**
Orillia Water, Light & Power Commission‡	....	—734,530	—247,600
Manitoulin Pulp Co	150	99,200	168,900
Ontario Power Service Corporation	....	34,054,060	....
Abitibi Power & Paper Co.—Espanola	500	....	645,023
Abitibi Power & Paper Co.—Sturgeon Falls†	....	....	15,725
Northern Ontario Power Co.†	....	....	No record
Total purchased	608,637	1,796,441,165	2,205,077,315

Power purchased, contract amount, 1934	608,637	horsepower
Maximum normal plant capacity, 1934	1,347,700	"
Total available capacity generated and purchased, 1934	1,956,337	"
Total available capacity generated and purchased, 1933	1,838,337	"
Difference (increase)	118,000	"
Total energy purchased, 1934	2,205,077,315	kilowatt-hours
Total energy generated, 1934	4,214,921,548	" "
Total energy generated and purchased, 1934	6,419,998,863	" "
Total energy generated and purchased, 1933	4,612,115,988	" "
Difference (increase)	1,807,882,875	" "

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*Includes 475,519,867 kilowatt-hours resold to the Gatineau Power Co. in 1933-34 and 24,514,285 kilowatt-hours in 1932-33.

**Includes 40,916,300 kilowatt-hours resold to the Gatineau Power Co. in 1933-34 and 0 kilowatt-hours in 1932-33.

†Emergency use.

‡Reciprocal arrangement for surplus power.

§Power contract with the Cedars Rapids Power Co. cancelled as of December 31, 1933, but was extended by agreement as a temporary supply on a month-to-month basis until July 31, 1934.

¶Power contract expired December 31, 1933.

CAUTION: The figures for "Maximum normal plant capacity" reflect the capacity of the various plants under the most favourable operating conditions which can reasonably be considered as normal, taking into consideration, turbine capacity as well as generator capacity and also the net operating head and available water supply.

Owing, among other things, to changes in generating equipment due to wear and tear or the replacement of parts, also to changes in the limitations governing water levels and effective net heads, the maximum normal plant capacity is not a fixed quantity but is one which must be revised from time to time.

It is particularly important to bear in mind that the column headed "Maximum normal plant capacity" cannot be taken as an indication of the dependable capacity of the various plants; in some cases, it is, but in many cases it is not. Chief among the factors which govern the maximum dependable capacity of a hydraulic power plant and which are not reflected in column headed "Maximum normal plant capacity" are abnormal variations in water supply and operating limitations encountered when plants are so situated on a given stream as to be affected by one another.

Forestry Division

The Forestry division employs men specially trained in line clearance who in the performance of their duties give due regard to the proper shaping and corrective pruning of trees. During recent years, they have done much to preserve the beauty of trees and improve the appearance of Ontario highways on which the Commission's lines are built. Many favorable comments on their work have been received.

The Forestry division's activities were confined principally to line-clearing operations on the Commission's transmission lines and on the distribution lines of various municipalities in the Niagara, Georgian Bay and Eastern Ontario systems; some work was done on Commission properties adjacent to high-tension stations, and some reforestation carried out along the Queenston-Chippawa canal. Details and costs are given below.

Transmission Line-Clearing Operations

The year's operations involved 59,338 trees and the removal of underbrush beneath 1,100 spans, spread over 1,935 miles of power transmission and telephone lines. The following tabulation shows all expenditure in connection with this work.

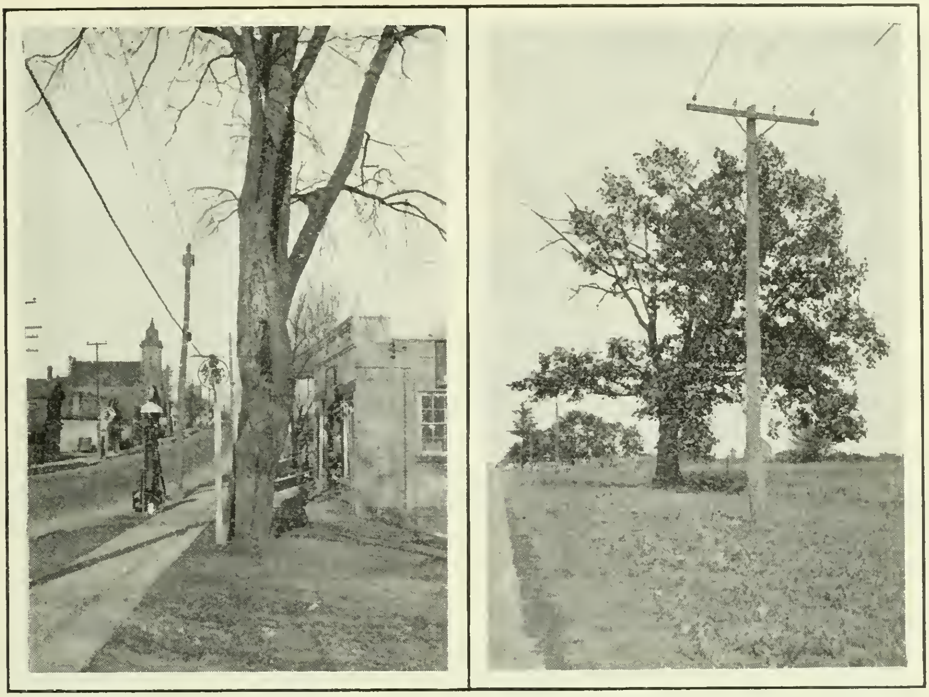
Item	Miles of line cleared	Volume of work performed	Total cost	Average cost
			$	$ c.
Underbrushing		1,100 pole spans (or 26 miles)	3,323	3.02
Tree removals		9,764 trees	16,696	1.71
Line clearance, pruning and cabling	1,935	49,574 trees	46,597	0.94
Total	1,935	59,338 trees	66,616	....

Present economic conditions have necessitated a reduction in the cost of forestry operations. Corrective pruning to preserve the health, and extensive shaping to improve the appearance of trees, was temporarily discontinued. Sufficient protection for the Commission's lines was obtained by a modified program of pruning, by cabling trees with weak or split crotches, and by the removal of any found diseased and dangerous.

A comparison of this year's operations with last year shows a substantial reduction in the cost of forestry line-clearing operations notwithstanding an appreciable increase in the volume of work performed and miles of line cleared. This increased volume with decreased costs has been accomplished partly as a result of modifying the standard of work, but is mainly due to major operations having been completed on nearly all lines in the Niagara system and on more than half the lines in the Georgian Bay system. The work required in subsequent operations is materially less than that required in initial major operations which involve corrective pruning and extensive tree removals.

Station Tree Maintenance

Some special work was performed to preserve the health and beauty of trees situated on Commission property surrounding high-tension stations at



HAZARDS TO LIFE, PROPERTY AND SERVICE

LEFT—Elm tree with diseased trunk situated on an important highway. A daily hazard to thousands of lives and to the overhead lines

RIGHT— Oak tree with dead branches overhanging transmission line. The result of natural causes not attributable to line-clearance pruning. The removal of dead wood reduces service interruptions

Guelph, Kitchener, Preston, Leaside, Niagara Falls and Queenston in the Niagara system, Belleville in the Eastern Ontario system and Waubaushene in the Georgian Bay system.

Any trees which might influence a landscape engineer received any corrective measures needed to secure their maximum usefulness or beauty. These include pruning and cabling, surgical treatment—often preceded by fertilization—spraying to control insect damage, and the removal of girdling roots that cut off natural circulation of sap. The cost of this work, involving 495 trees, was $1,038, an average cost of $2.10 per tree.

Reforestation

Along the Queenston-Chippawa power canal the tree planting undertaken to provide a tree lined area which will prevent drifting snow, ice and debris from getting into the canal, and reduce erosion of the banks, was continued. This year, however, work was confined to the replacement of trees that had not survived the unusual droughts of the previous seasons. About 45,000 deciduous and coniferous trees were planted at a total cost of $967.

Municipal Operations

Surveys of trees affecting distribution lines were made for eight municipal Hydro systems and to each a written report was supplied showing:

(a) Streets along which the lines extend.
(b) An actual count of trees affecting primary, secondary and street lighting circuits.
(c) Size of trees.
(d) Type of pruning and extent of work required.
(e) Cabling necessary in trees with structurally weak and splitting crotches.
(f) Replacement of improper pole guy attachments to trees.
(g) Diseased trees condemned for removal.
(h) Estimated cost of performing the work.

Forestry line-clearing operations were performed for six municipalities. The work comprised the pruning of 880 trees, the removal of eleven diseased trees, and the cabling of thirteen trees, a total of 891 trees at a cost of $825, an average cost of 93 cents per tree.

Radio Communication

The Commission's short-wave radio stations at Toronto, Cameron Falls generating station and Ear Falls generating station operated satisfactorily and no major maintenance costs were incurred.

The construction of the Rat Rapid power development on the Albany river was facilitated by the use of an additional radio station operated at that point.

NIAGARA SYSTEM

Generating Stations

Queenston Station

During the past year all generating plant and equipment has given satisfactory service. Routine schedules of inspection and repair have been carried out and the plant maintained in first class condition.

All maintenance work is executed in accordance with a carefully prepared schedule in order to avoid interference with the system load. To illustrate the importance of the individual unit in a large plant, it is pointed out that each unit in the Queenston plant represents approximately 50,000 horse-power, sufficient to supply the average requirements of an industrial city of 100,000 people for electrical energy, and that all units must be kept available in order to provide, during periods of maximum load, a reasonable reserve for contingencies. The work of maintaining the plant in first class condition is therefore arranged to be done at the time of the usual seasonal drop in load during the spring and summer.

TREE MUTILATION VERSUS SCIENTIFIC PRUNING

LEFT—Utilities operating overhead lines are oftentimes subjected to criticism on circumstantial evidence. The mutilation of these trees was not the result of line clearing

RIGHT—Scientific line clearing improves aesthetic conditions along Provincial highways and protects service from tree interference

OPERATING DEPARTMENT—FORESTRY DIVISION

The ten units were accordingly taken out of service for inspection and repairs as shown below:

Number 1 unit from May 1 to May 14
" 2 " " September 7 to October 15
" 3 " " June 29 to July 18
" 4 " " July 18 to July 28
" 5 " " April 24 to May 29
" 6 " " August 14 to September 6
" 7 " " May 18 to June 13
" 8 " " June 15 to June 26
" 9 " " June 1 to August 14
" 10 " " April 9 to April 23.

During the shut-down each generator and turbine was carefully examined, turbine runners were repaired by welding or replaced with spare runners where erosion had occurred, bearings were machined and refitted, collector rings were repaired or replaced and the draft tubes were inspected. The associated high-tension and low-tension circuit-breakers were examined, the operating mechanism and contacts adjusted and the oil filtered.

The installation of load limiting devices on the governors of the various units, which was mentioned in last year's Report, was continued and all machines are now so equipped.

The use of stainless steel for the final surface, when building up turbine runners by electric welding, has been continued as this material is still showing a much longer life than either the material previously used for welding or the parent material in the runner.

All relays have been calibrated and their operation checked.

The cliff above the power house was thoroughly scaled between the penstocks, and to the north and south.

Ontario Power Station

During the year no difficulties have been experienced in the operation of the plant, although there have been several failures of generator armature windings. The plant has been kept in good operating condition by the usual work of inspection and maintenance.

On November 25, 1933, the armature winding of number 2 generator failed in service and fifteen new coils were installed. This armature again failed on March 7, at another place in the winding, and it was decided to completely remove the old winding, which had been in service since 1909, and rewind with a set of coils of a new type which had been purchased a few years ago for such an emergency.

On November 25 the armature winding of number 5 generator failed in service; three new coils were supplied and repairs made to the ends of two other groups. This armature again failed on March 10, and, as it had been in service since 1909, the complete winding was replaced with a set of new coils.

On March 17, the armature winding of number 7 generator failed in service. It was necessary to replace three coils: two in one group and one in another. This armature again failed on August 24, damaging one coil, which was replaced.

These failures, while they did not interfere with operation, and caused no reduction in the delivery of power to customers, serve as a reminder of the necessity for maintaining sufficient reserve plant at all times.

The operating mechanism of number 6, nine-foot penstock valve failed in January, due to the stripping of the threads on the nuts and screws that operate the valve. The operating mechanism was redesigned, and the new mechanism fabricated and installed on valves number 3 and 6. A similar mechanism for valves number 1, 2 and 4 is being made.

As it was necessary to unwater number 1 conduit to install the new valves, the conduit, headgate, spillway and all penstock valves attached to that conduit were inspected. The conduit, headgate and spillway were found in good condition. A number of loose bolts in the penstock valves either had to be tightened or replaced. Several pieces of the valve seat-rings were also replaced. The bulkheads on the "Y" between numbers 1 and 2 conduits were found to be leaking badly. The bulkheads were drawn up tightly with the bolts, and the joint welded to complete the seal.

The machine shop in the north end of the generating station, which was started last year and was mentioned in last year's Report, was completed.

The ventilating air intake, at the south end of the generating station, was rebuilt during the summer. The concrete in this structure was considered unsafe due to the action of river ice.

Cleaning and painting, with rust preventing material, of the tunnel section of the penstocks for units 4 to 10 is in progress, number 4 penstock being completed.

The exterior of the screen and gatehouse buildings received extensive repairs. The Roman stone, with which these buildings are surfaced, requires attention each year. The steps leading to the screenhouse roof which is used by tourists as an observatory, were repaired and all joints waterproofed. Replacement of the roof drains was necessary.

In February a new electrically heated hotbed was installed. The bed is for demonstration purposes as well as to raise bedding plants for the station grounds in this district.

Toronto Power Station

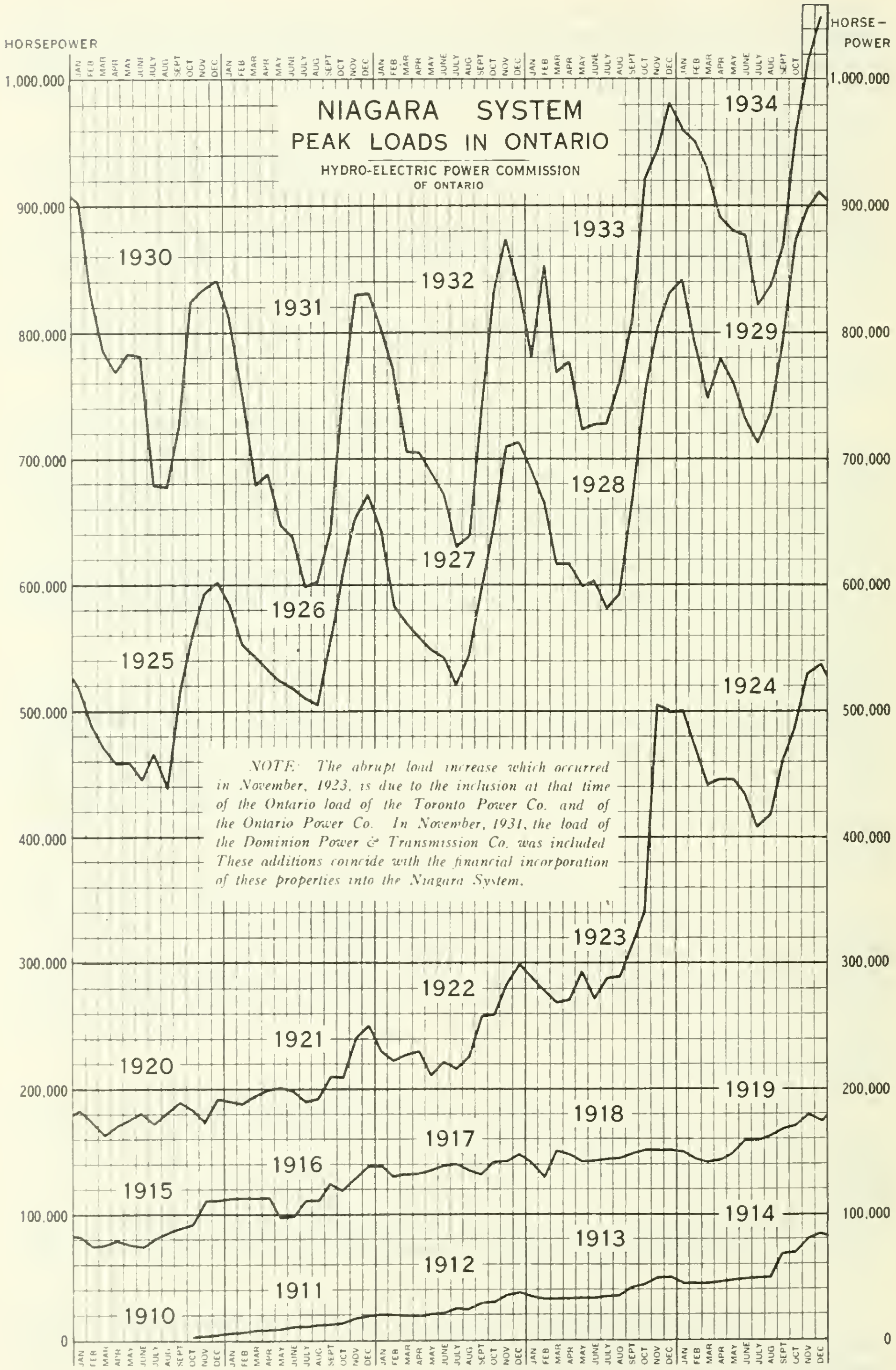
The Toronto Power generating station experienced no difficulties in operation. The plant was loaded quite heavily from the latter part of March to the end of July as a result of emergency repairs to generators and penstock valves in the Ontario Power plant. Inspection and maintenance of the generating units and equipment was carried out in accordance with the regular schedule.

Number 1 unit was removed from service for a general overhaul after being in operation for nineteen years. The top and bottom bearings are being refitted while the turbine runners, draft tube, gates, and top and bottom turbine heads are being built up by electric welding to replace material worn away in service. The bearings on the vertical operating shaft between the turbine and generator are being refitted. This work will not be finished during the present fiscal year.

Repairs were made to the guide bearings on units number 2, 5, 6, 8, 9 and 11, including in most cases a new sleeve and the rebabbitting of the bearings. The turbine-gate operating mechanism was overhauled on units number 9 and 11.

The main tail-race tunnel was unwatered during the summer for inspection, and a crack in the brick floor caused by the pressure of the side walls, was repaired.

On March 18, a 6,000-kv-a. transformer in the transformer station failed in service. This unit, and one 2,670-kv-a. transformer, which failed in 1932, have been rebuilt and returned to service.



NIAGARA SYSTEM
PEAK LOADS IN ONTARIO
HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO

NOTE: The abrupt load increase which occurred in November, 1923, is due to the inclusion at that time of the Ontario load of the Toronto Power Co. and of the Ontario Power Co. In November, 1931, the load of the Dominion Power & Transmission Co. was included. These additions coincide with the financial incorporation of these properties into the Niagara System.

HORSEPOWER
HORSE-POWER
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1910
1911
1912
1913
1914
1915
1916
1917
1918
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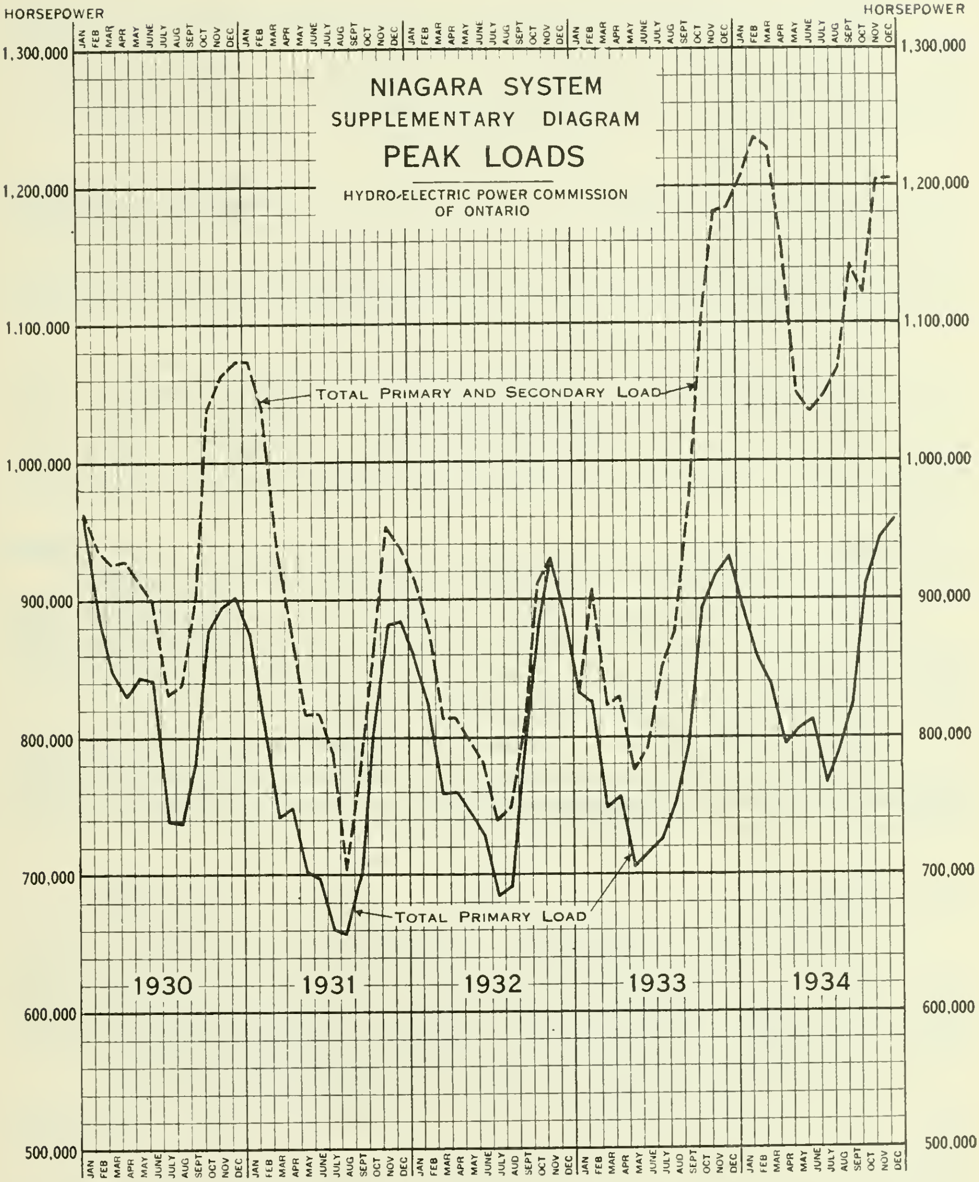
1932
1933
1934



SUPPLEMENTARY DIAGRAM—NIAGARA SYSTEM PEAK LOADS

Notes

TOTAL PRIMARY LOAD: Primary power is power which the Commission is under contractual obligation to supply and for which it is obligated to hold in reserve adequate capacity. The graph above includes only the actual delivery of such power, and does not include the amount by which the primary power contracts exceed actual deliveries

TOTAL PRIMARY AND SECONDARY LOAD: Includes, in addition to the primary load, at-will power which the Commission is under no obligation to hold in reserve. Such power has been sold in Ontario and exported to Quebec and the United States. The above graph includes all secondary power and therefore differs from the graph on the opposite page which shows only the load in Ontario

Chats Falls Station—Ottawa River

The station has been in continuous service throughout the year, the only major trouble being the failure of a 13,200-volt generator cable in the latter part of January. This has been replaced. The failure of this cable did not interfere with the output of the plant. All inspection and routine maintenance work was carried out in accordance with the regular schedule.

The draft tubes of units 2, 3, 4 and 5 were unwatered for the first time during the summer. They were in good condition and no evidence of excessive wear was found on the turbine runners which were also examined. Unwatering the draft tubes has been made easier by the installation of spring rollers on the tail-race gates, the pressure exerted by these springs eliminates the excessive leakage which previously occurred around the gate seal.

As a result of an abnormal deficiency in precipitation over the whole of the Ottawa river watershed during the summer and fall months of 1933, there was a very low stream flow from November until early in April. The minimum river flow occurred during March with approximately 14,000 c.f.s.. while on May 11, during the spring flood a flow of approximately 155,000 c.f.s. occurred.

During the major portion of the year the plant was used for system frequency and time control on the "green" section of the Niagara system.

Extreme winter conditions, with long periods of low temperatures, were experienced in this district, the total snowfall being reported as 110 inches. In order to keep the railway spur open to traffic a snow-plow and spreader were constructed for use with the locomotive crane.

On July 1, 1934, delivery was taken of the second block of contract power from the McLaren-Quebec Power Company at Masson. Delivery of the third block of power from the Beauharnois Light, Heat and Power Company began on October 1, 1934.

DeCew Falls Station

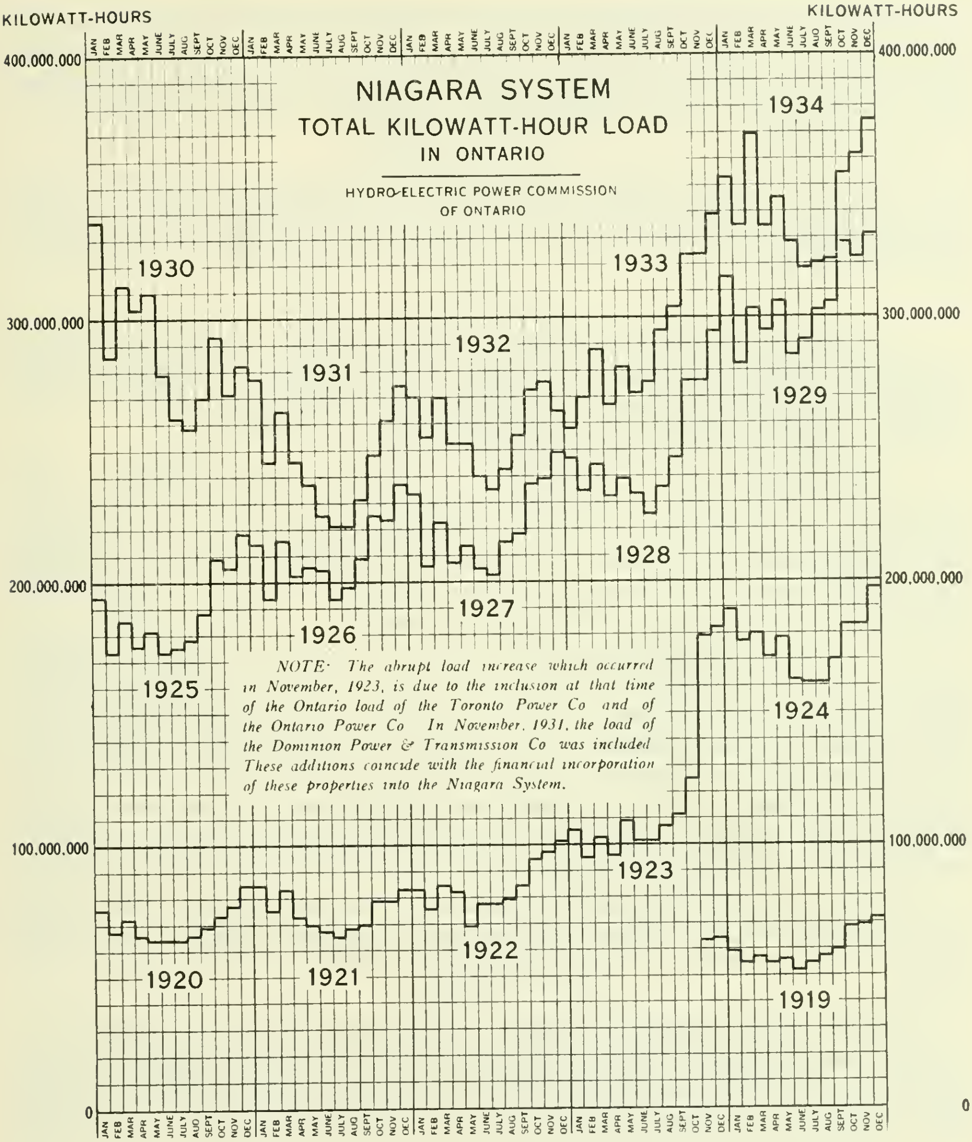
The plant operated continuously throughout the year with no interruptions to service or reductions in power from station causes, full use being made of the water allotment to this station. There were no break-downs of station equipment, and no serious ice difficulties during the severe winter. Regular inspection and repairs were carried out according to schedule.

The penstock, feeding number 9 unit, was cleaned and painted during the year. This completed the painting of all penstocks. The turbine relief valves were rebuilt on number 5 and number 7 units.

The 25-cycle power supply for the frequency-changer station in the Canadian Niagara transformer station, was taken from the Commission's Toronto Power generating station. the agreement with the Canadian Niagara Power Company having terminated on December 31, 1933.

Dominion Power Steam Station—Hamilton

The steam plant in Hamilton was maintained during the year as a standby for the DeCew Falls plant and frequency-changer station at Niagara Falls, but as there were no interruptions it was not called into service.



NOTE: The abrupt load increase which occurred in November, 1923, is due to the inclusion at that time of the Ontario load of the Toronto Power Co. and of the Ontario Power Co. In November, 1931, the load of the Dominion Power & Transmission Co. was included. These additions coincide with the financial incorporation of these properties into the Niagara System.

The boiler plant was used for the generation of steam for commercial purposes. The plant-efficiency and station-heat balance were improved during the year by the installation of an electrically-driven boiler feed pump. The burning of coke-breeze, mixed with bituminous coal, has been continued during the year. Owing to the extremely low water level of Lake Ontario, it was found necessary to dredge the condenser circulating-water intake in order to remove the accumulation of sludge and restore the channel to its original depth.

The stator of number 2 turbine-generator unit, which was damaged by a short circuit and fire in February 1932, was rewound and the field repaired.

While this work was being done the steam turbine was dismantled, cleaned and readjusted. No major work was found necessary. The unit was re-assembled and restored to service in January, 1934. Following the repair of this machine, this unit with the turbine disconnected has been operated continuously for voltage regulation.

The turbine of number 3 boiler feed-pump was completely re-bladed. Refinements in steam-metering equipment were installed, and the routine boiler inspection and maintenance work called for by government regulations were carried out.

Transmission

The 220,000-volt lines transmitting power from the Beauharnois, Masson and Paugan plants in Quebec, to the Chats Falls (Ottawa river) interswitching station, and thence to Toronto (Leaside), gave satisfactory service and no difficulties were experienced in their operation or maintenance.

There were two total interruptions of the three circuits between Chats Falls and Toronto. These were caused by lightning and resulted in disturbances to service in Toronto, and west as far as Hamilton. There were eleven single-circuit outages on this system, ten of which were caused by lightning and one by fog. The above disturbances caused no damage to the lines or equipment, and their immediate return to service was possible.

On the three circuits between Hastings interswitching station and the Ottawa river, the inspection of towers, ground wire and conductors, was started during the latter part of 1934. This work which includes the tightening of all bolts, and the installation of a special lock nut in certain locations to prevent loosening by vibration, is about 50 per cent completed. Approximately 4,400 acres of land, under and along these circuits, were underbrushed during the year, and in order to facilitate the work of patrolmen, some ten miles of patrol roads were constructed.

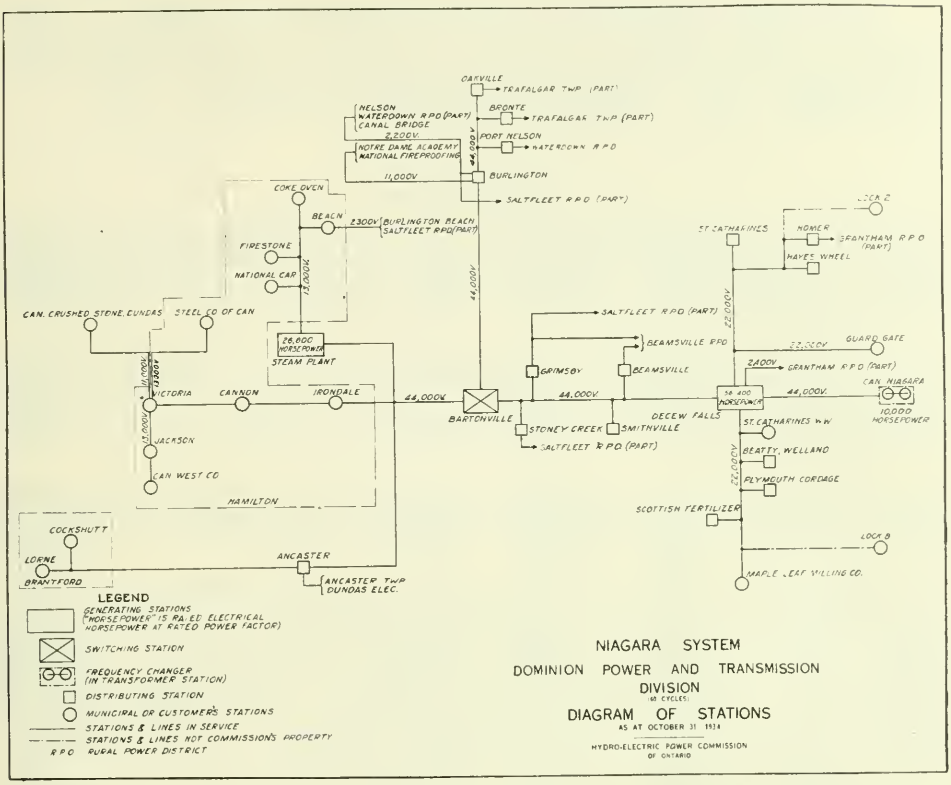
There were no complete interruptions on the 110,000-volt transmission system during the year. There were, however, two interruptions on one group and one interruption on another of the three individual groups comprising this system.

Regular patrol and maintenance was carried out on the 110,000-volt system, insulators were tested on 403 miles of line and defective units removed, painting of the McGuigan-type towers, which was started some years ago, was completed, and on the line between St. Thomas and St. Clair the ground wire connections were renewed.

The Commissions' private telephone lines were regularly patrolled, and general maintenance carried on. A short piece of new line was constructed from the Niagara-Dundas circuits along the canal to DeCew Falls generating station.

On the Dominion Power transmission lines there were no total interruptions, although there were three instances in which service to Hamilton, Brantford, Oakville and vicinity was affected by direct lightning strokes on the 44,000-volt lines.

A visual inspection was made of all insulators in the 44,000-volt lines and a partial inspection of insulators on the 24,000-volt circuits; the defective units being changed. The "A" frame steel towers carrying the 44,000-volt circuits


OAKVILLE
TRAFALGAR TWP (PART)
NELSON
WATERDOWN RPO (PART)
CANAL BRIDGE
2,200V.
BRONTE
TRAFALGAR TWP (PART)
NOTRE DAME ACADEMY
NATIONAL FIREPROOFING
44,000V
PORT NELSON
WATERDOWN RPO
11,000V
BURLINGTON
SALTFLEET RPO (PART)
COKE OVEN
BEACN
2300V
BURLINGTON BEACN
SALTFLEET RPO (PART)
FIRESTONE
NATIONAL CAR
13,000V
44,000V
CAN. CRUSHED STONE, DUNDAS
STEEL CO OF CAN
26,800 HORSEPOWER
STEAM PLANT
11,000V
13300V
VICTORIA
CANNON
IRONDALE
44,000V
BARTONVILLE
13,000V
JACKSON
CAN WEST CO
HAMILTON
COCKSHUTT
LORNE
BRANTFORD
ANCASTER
ANCASTER TWP
DUNDAS ELEC.
LOCK 2
ST CATHARINES
HOMER
GRANTHAM RPO (PART)
HAYES WHEEL
SALTFLEET RPO (PART)
22,000V
BEAMSVILLE RPO
GRIMSBY
BEAMSVILLE
44,000V.
22,000V
GUARD GATE
2400V
GRANTHAM RPO (PART)
56 400 HORSEPOWER
44,000V.
CAN NIAGARA
10,000 HORSEPOWER
DECEW FALLS
STONEY CREEK
SMITHVILLE
SALTFLEET RPO (PART)
ST. CATHARINES W.W.
BEATTY, WELLAND
22,000V
PLYMOUTH CORDAGE
SCOTTISH FERTILIZER
LOCK 8
MAPLE LEAF MILLING CO.
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
SWITCHING STATION
FREQUENCY CHANGER (IN TRANSFORMER STATION)
DISTRIBUTING STATION
MUNICIPAL OR CUSTOMER'S STATIONS
STATIONS & LINES IN SERVICE
STATIONS & LINES NOT COMMISSION'S PROPERTY
RPO RURAL POWER DISTRICT
NIAGARA SYSTEM
DOMINION POWER AND TRANSMISSION DIVISION
(60 CYCLES)
DIAGRAM OF STATIONS
AS AT OCTOBER 31 1934
HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

from the DeCew Falls plant to Bartonville interswitching station were cleaned and painted during the year. At the same time the steps were removed from the towers, the foot bolts tightened, and the footings painted.

Transformation

The operation of the Leaside 220,000-volt transformer station was generally satisfactory. One case of serious trouble, namely, the failure of number 2 synchronous condenser, occurred on October 31, while the condenser was being put on the line for a mechanical test. The armature winding was completely destroyed and some of the associated switchgear was damaged.

On the 110,000-volt system a 5,000-kv-a. transformer in service at London failed. This unit was under repair at the end of the fiscal year. There was a failure of a 1,250-kv-a. transformer at St. Thomas, caused by a short circuit in the leads of the terminal boards. During routine inspection, a 1,250-kv-a. transformer at Preston was found with defective bracing. This unit, and another of similar type, were removed from service and rebuilt.

The core bracing on a number of 5,000-kv-a. transformers was inspected and tightened, and a new station service bank installed at Bridgman-Davenport station.

Two complete inspections were carried out on all outdoor breakers, and one on indoor breakers. All units were adjusted, and repairs made where necessary. The 110,000-volt electrolytic lightning arresters at Brant, Woodstock, London and St. Thomas were completely overhauled.

Distribution

New low-tension distributing stations were put in service during the year at the Provincial Paper Company (steam), Interlake Tissue Mills (steam), Louth and Ringwood, and the transformer capacity at the Empire Cotton distributing station was increased.

There were ten failures of low-tension transformers. Three of these were rebuilt, and two are undergoing repairs by the field maintenance staff. Three units were repaired by the manufacturers, one was scrapped, and one has not been repaired.

All oil breakers were inspected, and repairs and re-adjustments made. The electrolytic lightning arresters at Goderich, Clinton, Seaforth and Mitchell municipal stations were overhauled.

No extensive difficulties were encountered in the operation of the low-tension lines during the year, although the extremely cold weather from the latter part of December to the middle of February, caused a number of interruptions to service by the breaking of conductors in the London, Stratford, Woodstock, St. Thomas, Kent and Essex districts. A sleet storm in March, and wind and rain storms in July, August and September, caused interruptions to service on three occasions in Kent and Essex districts.

The lines in Woodstock, St. Thomas, Brant and York districts were given an extensive general overhauling during the year. The conductors were changed on a number of sections in the St. Thomas area. One area was enlarged and reinsulated for 26,000 volts between London and Lucan. Railway crossings were made standard in St. Thomas and York districts.

Pole preservation work, started last year, which consists of uncovering poles at the ground line, removing decayed wood, and spraying with creosote, was continued during the year, some 20,000 poles being treated.

A new 26,000-volt line between Mount Joy and Ringwood, and a 13,200-volt line from the Provincial Paper Company to the Interlake Tissue Mills, were placed in service during the year.

In the Dominion Power division, the Beatty-Welland substation, which was destroyed by fire last year, was rebuilt and returned to service.

General

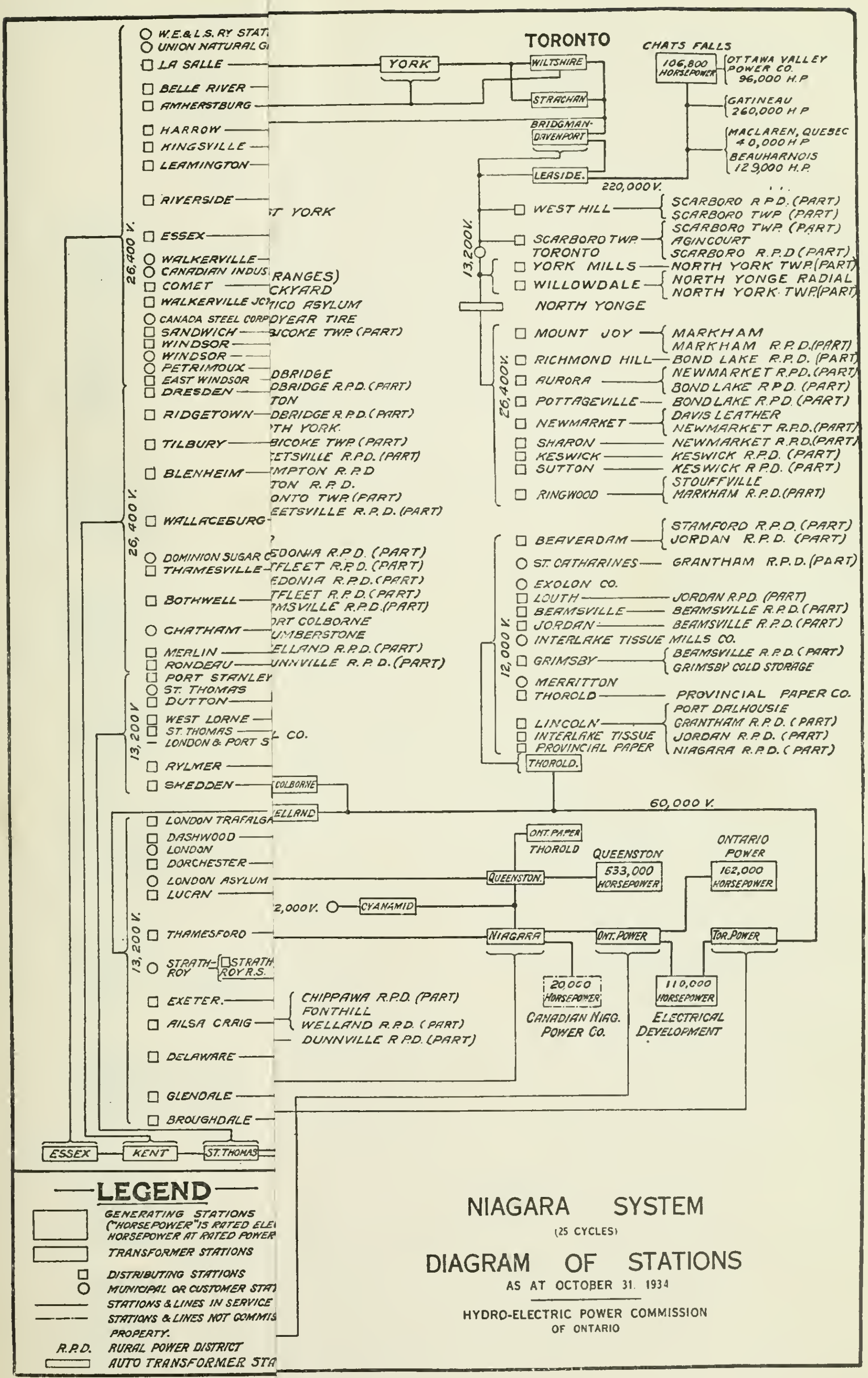
The office at Hamilton, from which the operation and maintenance of the Niagara system was controlled, was discontinued on November 30, 1933. The major portion of the staff and stores was transferred to Toronto, and the balance to a small divisional office at London which superintends the maintenance of lines and stations west of Brant and Kitchener. This change was made to effect a better co-ordination in the operation of the Niagara system as a whole.

NIAGARA SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Acton	787.6	832.6	1,044.9		212.3
Agincourt	155.2	116.6	128.0		11.4
Ailsa Craig	81.5	88.6	77.3	11.3	
Alvinston	87.9	82.8	85.6		2.8
Amherstburg	661.6	616.6	593.5	23.1	
Ancaster Township	284.5	283.8	250.6	33.2	
Arkona	52.6	45.4	46.9		1.5
Aurora	986.6	1,030.1	981.2	48.9	
Aylmer	513.4	469.1	490.6		21.5
Ayr	161.1	157.5	157.5		
Baden	237.9	241.7	250.2		8.5
Beachville	386.6	387.4	376.6	10.8	
Belle River	124.6	119.3	126.5		7.2
Blenheim	369.9	353.9	383.4		29.5
Blyth	101.4	87.4	86.7	0.7	
Bolton	118.8	137.7	109.7	28.0	
Bothwell	105.2	104.4	99.4	5.0	
Brampton	2,168.2	2,075.2	1,991.1	84.1	
Brantford	11,637.9	12,728.7	13,212.6		483.9
Brantford Township	505.1	605.6	602.3	3.3	
Bridgeport	108.4	85.5	118.8		33.3
Brigden	88.4	89.1	72.5	16.6	
Brussels	132.1	108.8	107.9	0.9	
Burford	136.4	115.5	131.3		15.8
Burgessville	57.1	54.1	30.5	23.6	
Caledonia	320.7	327.7	377.7		50.0
Campbellville	26.2	24.2	26.2		2.0
Cayuga	119.9	112.6	111.2	1.4	
Chatham	4,285.0	4,258.1	4,587.7		329.6
Chippawa	218.0	215.3	258.4		43.1
Clifford	58.1	61.5	61.9		0.4
Clinton	408.8	374.5	394.7		20.2
Comber	158.1	164.0	191.7		27.7
Cottam	62.7	58.0	64.3		6.3
Courtright	39.4	38.4	40.2		1.8
Dashwood	65.9	40.0	37.9	2.1	
Delaware	41.5	35.1	39.9		4.8
Dorchester	67.0	95.7	76.1	19.6	
Drayton	99.4	86.7	91.1		4.4
Dresden	286.1	280.0	288.9		8.9
Drumbo	67.7	66.3	66.5		0.2
Dublin	34.2	42.9	31.7	11.2	
Dundas	1,138.0	1,276.1	1,329.1		53.0
Dunnville	797.1	907.7	853.3	54.4	
Dutton	237.4	211.9	209.2	2.7	
East Windsor	2,450.4	2,277.4	2,530.8		253.4
Elmira	646.1	557.6	544.2	13.4	
Elora	384.7	291.4	295.3		3.9
Embro	83.8	104.5	88.2	16.3	
Erieau	70.7	72.6	62.7	9.9	

NIAGARA SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934—Continued

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Erie Beach	8.0	6.4	11.9		5.5
Essex	336.4	361.9	340.5	21.4	
Etobicoke Township	3,361.9	3,621.4	4,194.3		572.9
Exeter	424.9	382.0	396.8		14.8
Fergus	652.5	705.0	833.7		128.7
Fonthill	138.5	133.2	138.1		4.9
Forest	332.1	320.6	337.8		17.2
Galt	6,071.1	5,858.7	5,615.8	242.9	
Georgetown	902.7	978.3	987.9		9.6
Glencoe	170.8	163.7	164.9		1.2
Goderich	970.5	991.9	938.3	53.6	
Granton	90.4	96.5	102.1		5.6
Guelph	7,710.5	7,812.3	8,207.0		394.7
Hagersville	1,046.9	418.2	810.2		392.0
Hamilton	76,409.6	83,832.3	87,983.6		4,151.3
Harriston	289.2	247.2	269.7		22.5
Harrow	332.1	332.7	387.4		54.7
Hensall	150.4	121.6	145.1		23.5
Hespeler	1,864.9	1,879.7	1,713.8	165.9	
Highgate	61.6	69.0	90.3		21.3
Humberstone	324.4	386.7	367.8	18.9	
Ingersoll	1,870.0	1,969.0	1,860.4	108.6	
Jarvis	178.7	150.1	158.7		8.6
Kingsville	420.9	431.6	420.9	10.7	
Kitchener	14,874.6	15,000.6	16,469.5		1,468.9
Lambeth	99.6	94.9	109.2		14.3
La Salle	211.5	199.0	192.1	6.9	
Leamington	1,112.6	1,327.0	1,253.3	73.7	
Listowel	906.1	808.3	811.0		2.7
London	29,437.4	30,201.2	30,281.0		79.8
London Township Voted Area	371.4	358.5	410.6		52.1
Long Branch	736.0	733.9	733.9		
Lucan	134.0	136.0	131.0	5.0	
Lynden	74.5	66.3	69.8		3.5
Markham	249.3	211.8	236.2		24.4
Merlin	94.7	66.7	74.0		7.3
Merritton	2,737.3	2,765.1	3,140.4		375.3
Milton	597.1	804.4	527.6	276.8	
Milverton	311.4	295.6	252.0	43.6	
Mimico	2,211.8	2,218.5	2,347.1		128.6
Mimico Asylum	65.0	100.0	100.0		
Mitchell	422.2	433.8	411.5	22.3	
Moorefield	58.2	45.5	45.5		
Mount Brydges	92.7	79.6	93.8		14.2
Newbury	43.4	40.6	41.5		0.9
New Hamburg	470.2	399.1	393.8	5.3	
Newmarket	1,380.7	1,285.5	1,273.4	12.1	
New Toronto	4,766.7	4,790.8	5,565.7		774.9
Niagara Falls	8,774.0	9,135.6	8,665.9	469.7	
Niagara-on-the-Lake	548.8	546.1	559.0		12.9


W.E.& L.S. RY STAT
UNION NATURAL G
LA SALLE
BELLE RIVER
AMHERSTBURG
HARROW
KINGSVILLE
LEAMINGTON
RIVERSIDE
ESSEX
WALKERVILLE
CANADIAN INDUS
COMET
WALKERVILLE JCT
CANADA STEEL CORP
SANDWICH
WINDSOR
WINDSOR
PETRIMOUX
EAST WINDSOR
DRESDEN
RIDGETOWN
TILBURY
BLENHEIM
WALLACEBURG
DOMINION SUGAR C
THAMESVILLE
BOTHWELL
CHATHAM
MERLIN
RONDEAU
PORT STANLEY
ST. THOMAS
DUTTON
WEST LORNE
ST. THOMAS
LONDON & PORT S
AYLMER
SHEDDEN
26,400 V.
26,400 V.
13,200 V.
LONDON TRAFALGA
DASHWOOD
LONDON
DORCHESTER
LONDON ASYLUM
LUCAN
THAMESFORD
STRATH-ROY
STRATH ROY R.S.
EXETER
AILSA CRAIG
DELAWARE
GLENDALE
BROUGHDALE
13,200 V.
ESSEX
KENT
ST. THOMAS
T YORK
RANGES)
CKYARD
ICO ASYLUM
DYEAR TIRE
BICOKE TWP. (PART)
DBRIDGE
DBRIDGE R.P.D. (PART)
TON
DBRIDGE R.P.D. (PART)
TH YORK
BICOKE TWP. (PART)
ETSVILLE R.P.D. (PART)
MPTON R.P.D
TON R.P.D.
ONTO TWP. (PART)
EETSVILLE R.P.D. (PART)
EDONIA R.P.D. (PART)
TFLEET R.P.D. (PART)
EDONIA R.P.D. (PART)
TFLEET R.P.D. (PART)
MSVILLE R.P.D. (PART)
ORT COLBORNE
UMBERSTONE
ELLAND R.P.D. (PART)
UNNVILLE R.P.D. (PART)
L CO.
COLBORNE
ELLAND
TORONTO
YORK
WILTSHIRE
STRACHAN
BRIDGMAN-DAVENPORT
LEASIDE.
220,000 V.
CHATS FALLS
106,800 HORSEPOWER
OTTAWA VALLEY POWER CO. 96,000 H.P.
GATINEAU 260,000 H.P.
MACLAREN, QUEBEC 40,000 H.P.
BEAUHARNOIS 129,000 H.P.
13,200 V.
WEST HILL
SCARBORO R.P.D. (PART)
SCARBORO TWP. (PART)
SCARBORO TWP. TORONTO
SCARBORO TWP. (PART)
AGINCOURT
SCARBORO R.P.D. (PART)
YORK MILLS
NORTH YORK TWP. (PART)
WILLOWDALE
NORTH YONGE RADIAL
NORTH YORK TWP. (PART)
NORTH YONGE
26,400 V.
MOUNT JOY
MARKHAM
MARKHAM R.P.D. (PART)
RICHMOND HILL
BOND LAKE R.P.D. (PART)
AURORA
NEWMARKET R.P.D. (PART)
BOND LAKE R.P.D. (PART)
POTTAGEVILLE
BOND LAKE R.P.D. (PART)
NEWMARKET
DAVIS LEATHER
NEWMARKET R.P.D. (PART)
SHARON
NEWMARKET R.P.D. (PART)
KESWICK
KESWICK R.P.D. (PART)
SUTTON
KESWICK R.P.D. (PART)
RINGWOOD
STOUFFVILLE
MARKHAM R.P.D. (PART)
12,000 V.
BEAVERDAM
STAMFORD R.P.D. (PART)
JORDAN R.P.D. (PART)
ST. CATHARINES
GRANTHAM R.P.D. (PART)
EXOLON CO.
LOUTH
JORDAN R.P.D. (PART)
BEAMSVILLE
BEAMSVILLE R.P.D. (PART)
JORDAN
BEAMSVILLE R.P.D. (PART)
INTERLAKE TISSUE MILLS CO.
GRIMSBY
BEAMSVILLE R.P.D. (PART)
GRIMSBY COLD STORAGE
MERRITTON
THOROLD
PROVINCIAL PAPER CO.
LINCOLN
PORT DALHOUSIE
GRANTHAM R.P.D. (PART)
INTERLAKE TISSUE
JORDAN R.P.D. (PART)
PROVINCIAL PAPER
NIAGARA R.P.D. (PART)
THOROLD.
60,000 V.
ONT. PAPER THOROLD
QUEENSTON
QUEENSTON 533,000 HORSEPOWER
ONTARIO POWER 162,000 HORSEPOWER
2,000 V.
CYANAMID
NIAGARA
ONT. POWER
TOR. POWER
20,000 HORSEPOWER
CANADIAN NIAG. POWER CO.
110,000 HORSEPOWER
ELECTRICAL DEVELOPMENT
CHIPPAWA R.P.D. (PART)
FONTHILL
WELLAND R.P.D. (PART)
DUNNVILLE R.P.D. (PART)
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELE HORSEPOWER AT RATED POWER
TRANSFORMER STATIONS
DISTRIBUTING STATIONS
MUNICIPAL OR CUSTOMER STAT
STATIONS & LINES IN SERVICE
STATIONS & LINES NOT COMMIS PROPERTY.
R.P.D. RURAL POWER DISTRICT
AUTO TRANSFORMER STA

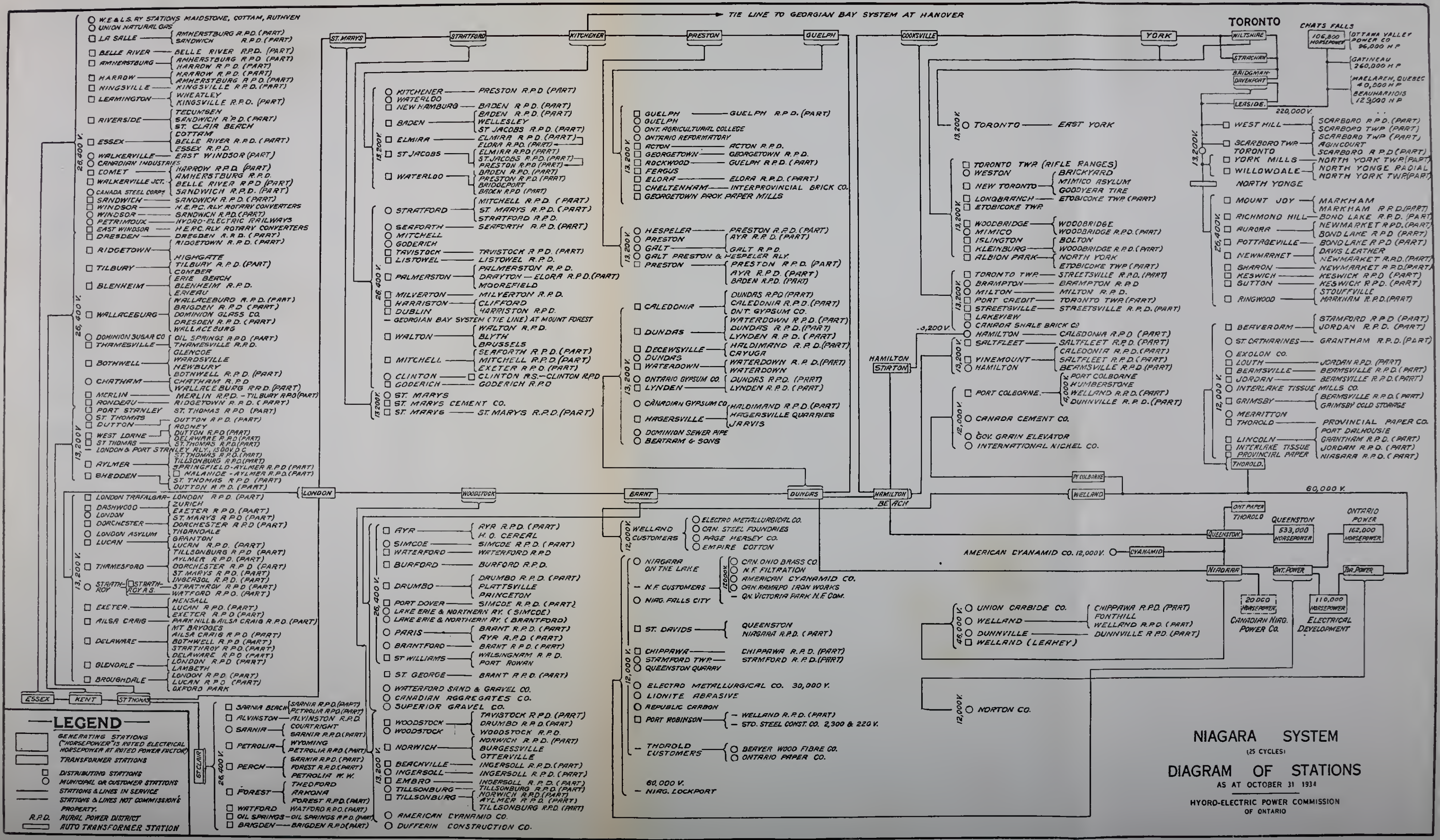
NIAGARA SYSTEM

(25 CYCLES)

DIAGRAM OF STATIONS

AS AT OCTOBER 31, 1934

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO


W.E.&L.S. RY STATIONS MAIDSTONE, COTTAM, RUTHVEN
UNION NATURAL GAS
LA SALLE — AMHERSTBURG R.P.D. (PART) / SANDWICH R.P.D. (PART)
BELLE RIVER — BELLE RIVER R.P.D. (PART)
AMHERSTBURG — AMHERSTBURG R.P.D. (PART) / HARROW R.P.D. (PART)
HARROW — HARROW R.P.D. (PART) / AMHERSTBURG R.P.D. (PART)
KINGSVILLE — KINGSVILLE R.P.D. (PART)
LEAMINGTON — WHEATLEY / KINGSVILLE R.P.D. (PART)
RIVERSIDE — TECUMSEH / SANDWICH R.P.D. (PART) / ST. CLAIR BEACH
ESSEX — COTTAM / BELLE RIVER R.P.D. (PART) / ESSEX R.P.D.
WALKERVILLE — EAST WINDSOR (PART)
CANADIAN INDUSTRIES
COMET — HARROW R.P.D. (PART) / AMHERSTBURG R.P.D.
WALKERVILLE JCT. — BELLE RIVER R.P.D. (PART) / SANDWICH R.P.D. (PART)
CANADA STEEL CORP'S
SANDWICH — SANDWICH R.P.D. (PART)
WINDSOR — H.E.P.C. RLY. ROTARY CONVERTERS
WINDSOR — SANDWICH R.P.D. (PART)
PETRIMOUX — HYDRO-ELECTRIC RAILWAYS
EAST WINDSOR — H.E.P.C. RLY. ROTARY CONVERTERS
DRESDEN — DRESDEN R.P.D. (PART)
RIDGETOWN — RIDGETOWN R.P.D. (PART) / HIGHGATE
TILBURY — TILBURY R.P.D. (PART) / COMBER
BLENHEIM — ERIE BEACH / BLENHEIM R.P.D. / ERIEAU
WALLACEBURG — WALLACEBURG R.P.D. (PART) / BRIGDEN R.P.D. (PART) / DOMINION GLASS CO. / DRESDEN R.P.D. (PART) / WALLACEBURG
DOMINION SUGAR CO — OIL SPRINGS R.P.D. (PART)
THAMESVILLE — THAMESVILLE R.P.D.
BOTHWELL — GLENCOE / WARDSVILLE / NEWBURY / BOTHWELL R.P.D. (PART)
CHATHAM — CHATHAM R.P.D. / WALLACEBURG R.P.D. (PART)
MERLIN — MERLIN R.P.D. - TILBURY R.P.D. (PART)
RONDEAU — RIDGETOWN R.P.D. (PART)
PORT STANLEY — ST. THOMAS R.P.D. (PART)
ST. THOMAS — DUTTON R.P.D. (PART)
DUTTON — RODNEY / DUTTON R.P.D. (PART)
WEST LORNE — DELAWARE R.P.D. (PART)
ST THOMAS — ST. THOMAS R.P.D. (PART)
LONDON & PORT STANLEY RLY. 1500 V.D.C.
ST. THOMAS R.P.D. (PART)
AYLMER — TILLSONBURG R.P.D. (PART) / SPRINGFIELD-AYLMER R.P.D. (PART)
BHEDDEN — MALAHIDE-AYLMER R.P.D. (PART) / ST. THOMAS R.P.D. (PART) / DUTTON R.P.D. (PART)
26,400 V.
26,400 V.
13,200 V.
ESSEX
KENT
ST THOMAS
LONDON
LONDON TRAFALGAR — LONDON R.P.D. (PART)
DASHWOOD — ZURICH / EXETER R.P.D. (PART)
LONDON — ST. MARYS R.P.D. (PART)
DORCHESTER — DORCHESTER R.P.D. (PART) / THORNDALE
LONDON ASYLUM — GRANTON
LUCAN — LUCAN R.P.D. (PART) / TILLSONBURG R.P.D. (PART) / AYLMER R.P.D. (PART)
THAMESFORD — DORCHESTER R.P.D. (PART) / ST. MARYS R.P.D. (PART) / INGERSOL R.P.D. (PART)
STRATHROY — STRATHROY R.A.S. — STRATHROY R.P.D. (PART) / WATFORD R.P.D. (PART)
EXETER — HENSALL / LUCAN R.P.D. (PART) / EXETER R.P.D. (PART)
AILSA CRAIG — PARKHILL & AILSA CRAIG R.P.D. (PART)
DELAWARE — MT BRYDGES / AILSA CRAIG R.P.D. (PART) / BOTHWELL R.P.D. (PART) / STRATHROY R.P.D. (PART) / DELAWARE R.P.D. (PART)
GLENDALE — LONDON R.P.D. (PART) / LAMBETH
BROUGHDALE — LONDON R.P.D. (PART) / LUCAN R.P.D. (PART) / OXFORD PARK
13,200 V.
ST. CLAIR
26,400 V.
SARNIA BEACH — SARNIA R.P.D. (PART) / PETROLIA R.P.D. (PART)
ALVINSTON — ALVINSTON R.P.D.
SARNIA — COURTRIGHT / SARNIA R.P.D. (PART)
PETROLIA — WYOMING / PETROLIA R.P.D. (PART)
PERCH — SARNIA R.P.D. (PART) / FOREST R.P.D. (PART) / PETROLIA W.W.
FOREST — THEDFORD / ARKONA / FOREST R.P.D. (PART)
WATFORD — WATFORD R.P.D. (PART)
OIL SPRINGS — OIL SPRINGS R.P.D. (PART)
BRIGDEN — BRIGDEN R.P.D. (PART)
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
DISTRIBUTING STATIONS
MUNICIPAL OR CUSTOMER STATIONS
STATIONS & LINES IN SERVICE
STATIONS & LINES NOT COMMISSION'S PROPERTY.
R.P.D. RURAL POWER DISTRICT
AUTO TRANSFORMER STATION
ST. MARYS
STRATFORD
KITCHENER
PRESTON
GUELPH
TIE LINE TO GEORGIAN BAY SYSTEM AT HANOVER
COOKSVILLE
YORK
TORONTO
WILTSHIRE
STRACHAN
BRIDGMAN-DAVENPORT
LEASIDE
CHATS FALLS
106,800 HORSEPOWER
OTTAWA VALLEY POWER CO 96,000 H.P.
GATINEAU 260,000 H.P.
MAcLAREN, QUEBEC 40,000 H.P.
BEAUHARNOIS 123,000 H.P.
220,000 V.
13,200 V.
KITCHENER — PRESTON R.P.D. (PART)
WATERLOO
NEW HAMBURG — BADEN R.P.D. (PART)
BADEN — BADEN R.P.D. (PART) / WELLESLEY / ST JACOBS R.P.D. (PART)
ELMIRA — ELMIRA R.P.D. (PART) / ELORA R.P.D. (PART)
ST JACOBS — ELMIRA R.P.D. (PART) / ST.JACOBS R.P.D. (PART) / PRESTON R.P.D. (PART)
WATERLOO — BADEN R.P.D. (PART) / PRESTON R.P.D. (PART) / BRIDGEPORT / BADEN R.P.D. (PART)
26,400 V.
STRATFORD — MITCHELL R.P.D. (PART) / ST. MARYS R.P.D. (PART) / STRATFORD R.P.D.
SEAFORTH — SEAFORTH R.P.D. (PART)
MITCHELL
GODERICH
TAVISTOCK — TAVISTOCK R.P.D. (PART)
LISTOWEL — LISTOWEL R.P.D.
PALMERSTON — PALMERSTON R.P.D. / DRAYTON — ELORA R.P.D. (PART) / MOOREFIELD
MILVERTON — MILVERTON R.P.D.
HARRISTON — CLIFFORD
DUBLIN — HARRISTON R.P.D.
GEORGIAN BAY SYSTEM (TIE LINE) AT MOUNT FOREST
WALTON — WALTON R.P.D. / BLYTH / BRUSSELS
MITCHELL — SEAFORTH R.P.D. (PART) / MITCHELL R.P.D. (PART) / EXETER R.P.D. (PART)
CLINTON — CLINTON R.S. — CLINTON R.P.D.
GODERICH — GODERICH R.P.D.
13,200 V.
ST. MARYS
ST. MARYS CEMENT CO.
ST. MARYS — ST. MARYS R.P.D. (PART)
13,200 V.
GUELPH — GUELPH R.P.D. (PART)
GUELPH
ONT. AGRICULTURAL COLLEGE
ONTARIO REFORMATORY
ACTON — ACTON R.P.D.
GEORGETOWN — GEORGETOWN R.P.D.
ROCKWOOD — GUELPH R.P.D. (PART)
FERGUS
ELORA — ELORA R.P.D. (PART)
CHELTENHAM — INTERPROVINCIAL BRICK CO.
GEORGETOWN PROV. PAPER MILLS
13,200 V.
HESPELER — PRESTON R.P.D. (PART)
PRESTON — AYR R.P.D. (PART)
GALT — GALT R.P.D.
GALT PRESTON & HESPELER RLY.
PRESTON — PRESTON R.P.D. (PART) / AYR R.P.D. (PART) / BADEN R.P.D. (PART)
13,200 V.
CALEDONIA — DUNDAS R.P.D. (PART) / CALEDONIA R.P.D. (PART) / ONT. GYPSUM CO.
DUNDAS — WATERDOWN R.P.D. (PART) / DUNDAS R.P.D. (PART) / LYNDEN R.P.D. (PART)
DECEWSVILLE — HALDIMAND R.P.D. (PART) / CAYUGA
DUNDAS
WATERDOWN — WATERDOWN R.P.D. (PART) / WATERDOWN
ONTARIO GYPSUM CO. — DUNDAS R.P.D. (PART)
LYNDEN — LYNDEN R.P.D. (PART)
CANADIAN GYPSUM CO — HALDIMAND R.P.D. (PART)
HAGERSVILLE — HAGERSVILLE QUARRIES / JARVIS
DOMINION SEWER PIPE
BERTRAM & SONS
13,200 V.
TORONTO — EAST YORK
13,200 V.
TORONTO TWP. (RIFLE RANGES)
WESTON — BRICKYARD / MIMICO ASYLUM
NEW TORONTO — GOODYEAR TIRE
LONGBRANCH — ETOBICOKE TWP. (PART)
ETOBICOKE TWP.
WOODBRIDGE — WOODBRIDGE / WOODBRIDGE R.P.D. (PART)
MIMICO
ISLINGTON — BOLTON
KLEINBURG — WOODBRIDGE R.P.D. (PART)
ALBION PARK — NORTH YORK / ETOBICOKE TWP. (PART)
13,200 V.
TORONTO TWP. — STREETSVILLE R.P.D. (PART)
BRAMPTON — BRAMPTON R.P.D.
MILTON — MILTON R.P.D.
PORT CREDIT — TORONTO TWP. (PART)
STREETSVILLE — STREETSVILLE R.P.D. (PART)
LAKEVIEW
CANADA SHALE BRICK CO
13,200 V.
HAMILTON — CALEDONIA R.P.D. (PART)
13,200 V.
SALTFLEET — SALTFLEET R.P.D. (PART)
VINEMOUNT — CALEDONIA R.P.D. (PART) / SALTFLEET R.P.D. (PART)
HAMILTON — BEAMSVILLE R.P.D. (PART)
HAMILTON STATION
12,000 V.
PORT COLBORNE — 4,000 V. — PORT COLBORNE / HUMBERSTONE / WELLAND R.P.D. (PART) / DUNNVILLE R.P.D. (PART)
CANADA CEMENT CO.
GOV. GRAIN ELEVATOR
INTERNATIONAL NICKEL CO.
13,200 V.
WEST HILL — SCARBORO R.P.D. (PART) / SCARBORO TWP. (PART)
SCARBORO TWP. — SCARBORO TWP. (PART) / AGINCOURT
TORONTO — SCARBORO R.P.D. (PART)
YORK MILLS — NORTH YORK TWP. (PART)
WILLOWDALE — NORTH YONGE RADIAL / NORTH YORK TWP. (PART)
NORTH YONGE
26,400 V.
MOUNT JOY — MARKHAM / MARKHAM R.P.D. (PART)
RICHMOND HILL — BOND LAKE R.P.D. (PART)
AURORA — NEWMARKET R.P.D. (PART) / BOND LAKE R.P.D. (PART)
POTTAGEVILLE — BOND LAKE R.P.D. (PART)
NEWMARKET — DAVIS LEATHER / NEWMARKET R.P.D. (PART)
SHARON — NEWMARKET R.P.D. (PART)
KESWICK — KESWICK R.P.D. (PART)
SUTTON — KESWICK R.P.D. (PART)
RINGWOOD — STOUFFVILLE / MARKHAM R.P.D. (PART)
12,000 V.
BEAVERDAM — STAMFORD R.P.D. (PART) / JORDAN R.P.D. (PART)
ST. CATHARINES — GRANTHAM R.P.D. (PART)
EXOLON CO.
LOUTH — JORDAN R.P.D. (PART)
BEAMSVILLE — BEAMSVILLE R.P.D. (PART)
JORDAN — BEAMSVILLE R.P.D. (PART)
INTERLAKE TISSUE MILLS CO.
GRIMSBY — BEAMSVILLE R.P.D. (PART) / GRIMSBY COLD STORAGE
MERRITTON
THOROLD — PROVINCIAL PAPER CO.
LINCOLN — PORT DALHOUSIE / GRANTHAM R.P.D. (PART)
INTERLAKE TISSUE — JORDAN R.P.D. (PART)
PROVINCIAL PAPER — NIAGARA R.P.D. (PART)
THOROLD
WOODSTOCK
BRANT
DUNDAS
HAMILTON BEACH
PT COLBORNE
WELLAND
60,000 V.
26,400 V.
AYR — AYR R.P.D. (PART) / H. O. CEREAL
SIMCOE — SIMCOE R.P.D. (PART)
WATERFORD — WATERFORD R.P.D.
BURFORD — BURFORD R.P.D.
DRUMBO — DRUMBO R.P.D. (PART) / PLATTSVILLE / PRINCETON
PORT DOVER — SIMCOE R.P.D. (PART)
LAKE ERIE & NORTHERN RY. (SIMCOE)
LAKE ERIE & NORTHERN RY. (BRANTFORD)
PARIS — BRANT R.P.D. (PART) / AYR R.P.D. (PART)
BRANTFORD — BRANT R.P.D. (PART)
ST WILLIAMS — WALSINGHAM R.P.D. / PORT ROWAN
ST. GEORGE — BRANT R.P.D. (PART)
WATERFORD SAND & GRAVEL CO.
CANADIAN AGGREGATES CO.
SUPERIOR GRAVEL CO.
13,200 V.
WOODSTOCK — TAVISTOCK R.P.D. (PART) / DRUMBO R.P.D. (PART)
WOODSTOCK — WOODSTOCK R.P.D.
NORWICH — NORWICH R.P.D. (PART) / BURGESSVILLE / OTTERVILLE
BEACHVILLE — INGERSOLL R.P.D. (PART)
INGERSOLL — INGERSOLL R.P.D. (PART)
EMBRO — INGERSOLL R.P.D. (PART)
TILLSONBURG — TILLSONBURG R.P.D. (PART)
TILLSONBURG — NORWICH R.P.D. (PART) / AYLMER R.P.D. (PART) / TILLSONBURG R.P.D. (PART)
AMERICAN CYANAMID CO.
DUFFERIN CONSTRUCTION CO.
12,000 V.
WELLAND CUSTOMERS — ELECTRO METALLURGICAL CO. / CAN. STEEL FOUNDRIES / PAGE HERSEY CO. / EMPIRE COTTON
NIAGARA ON THE LAKE
N.F. CUSTOMERS — 12,000 V. — CAN. OHIO BRASS CO / N.F. FILTRATION / AMERICAN CYANAMID CO. / CAN. RAMAPO IRON WORKS / QN. VICTORIA PARK N.F. COM.
NIAG. FALLS CITY
12,000 V.
ST. DAVIDS — QUEENSTON / NIAGARA R.P.D. (PART)
CHIPPAWA — CHIPPAWA R.P.D. (PART)
STAMFORD TWP. — STAMFORD R.P.D. (PART)
QUEENSTON QUARRY
ELECTRO METALLURGICAL CO. 30,000 V.
LIONITE ABRASIVE
REPUBLIC CARBON
PORT ROBINSON — WELLAND R.P.D. (PART) / STD. STEEL CONST. CO. 2,300 & 220 V.
THOROLD CUSTOMERS — BEAVER WOOD FIBRE CO. / ONTARIO PAPER CO.
60,000 V.
NIAG. LOCKPORT
AMERICAN CYANAMID CO. 12,000 V.
CYANAMID
ONT PAPER THOROLD
QUEENSTON
QUEENSTON 533,000 HORSEPOWER
ONTARIO POWER 162,000 HORSEPOWER
NIAGARA
ONT. POWER
TOR. POWER
20,000 HORSEPOWER
CANADIAN NIAG. POWER CO.
110,000 HORSEPOWER
ELECTRICAL DEVELOPMENT
46,000 V.
UNION CARBIDE CO. — CHIPPAWA R.P.D. (PART) / FONTHILL
WELLAND — WELLAND R.P.D. (PART)
DUNNVILLE — DUNNVILLE R.P.D. (PART)
WELLAND (LEAHEY)
12,000 V.
NORTON CO.

NIAGARA SYSTEM
(25 CYCLES)
DIAGRAM OF STATIONS
AS AT OCTOBER 31 1934
HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO

NIAGARA SYSTEMS—LOADS OF MUNICIPALITIES, 1932-1933-1934—Continued

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Norwich	335.1	308.3	304.9	3.4	
Oil Springs	172.7	159.3	179.8		20.5
Ontario Agricultural College	427.6	469.1	485.2		16.1
Ontario Central Reformatory	249.3	243.9	256.7		12.8
Otterville	77.7	84.3	92.9		8.6
Palmerston	458.5	437.5	396.0	41.5	
Paris	1,178.4	1,197.2	1,132.8	64.4	
Parkhill	131.3	124.2	128.9		4.7
Petrolia	761.7	685.8	677.8	8.0	
Plattsville	53.3	60.2	52.2	8.0	
Point Edward	689.0	636.7	467.8	168.9	
Port Colborne	1,407.5	1,420.9	1,422.2		1.3
Port Credit	549.3	611.2	668.5		57.3
Port Dalhousie	439.7	503.7	502.7	1.0	
Port Dover	315.6	296.5	297.8		1.3
Port Rowan	73.0	67.1	64.3	2.8	
Port Stanley	228.5	261.5	240.1	21.4	
Preston	2,560.3	2,461.1	2,341.4	119.7	
Princeton	103.2	98.8	85.9	12.9	
Queenston	83.5	80.7	112.8		32.1
Richmond Hill	297.0	293.1	304.3		11.2
Ridgetown	439.7	446.4	397.7	48.7	
Riverside	1,200.6	1,104.9	1,073.0	31.9	
Rockwood	104.5	89.8	92.5		2.7
Rodney	145.7	131.1	121.9	9.2	
St. Catharines	7,872.8	7,854.2	8,852.4		998.2
St. Clair Beach	90.7	72.6	57.6	15.0	
St. George	147.4	129.3	138.8		9.5
St. Jacobs	152.8	151.4	146.9	4.5	
St. Marys	1,501.8	1,225.7	1,259.2		33.5
St. Thomas	5,761.4	6,179.6	5,986.5	193.1	
Sandwich	2,996.4	2,956.2	2,743.0	213.2	
Sarnia	7,360.6	7,581.1	7,397.9	183.2	
Scarboro Township	3,124.6	2,981.5	3,099.2		117.7
Seaforth	465.3	408.8	485.7		76.9
Simcoe	1,546.1	1,613.9	1,705.2		91.3
Springfield	65.6	59.0	60.0		1.0
Stamford Township	1,859.8	1,819.0	1,913.0		94.0
Stouffville	204.1	167.9	183.3		15.4
Stratford	7,180.2	6,530.9	6,562.9		32.0
Strathroy	910.2	946.4	920.9	25.5	
Sutton	152.7	153.5	147.8	5.7	
Tavistock	496.0	424.6	444.5		19.9
Tecumseh	302.2	294.7	290.0	4.7	
Thamesford	158.8	159.5	176.2		16.7
Thamesville	171.0	163.5	165.7		2.2
Thedford	57.6	127.0	143.0		16.0
Thorndale	40.6	36.4	37.8		1.4
Thorold	1,956.4	1,914.6	1,782.1	132.5	
Tilbury	366.6	398.1	331.1	67.0	

NIAGARA SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934—Concluded

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Tillsonburg	891.0	900.1	843.1	57.0	
Toronto	280,795.0	269,144.8	280,525.4		11,380.6
Toronto Township	1,868.0	1,793.7	1,936.7		143.0
Walkerville	5,454.7	5,336.4	6,132.7		796.3
Wallaceburg	1,252.0	1,888.7	1,821.6	67.1	
Wardsville	35.4	34.3	32.7	1.6	
Waterdown	191.7	201.0	196.2	4.8	
Waterford	406.8	399.4	322.4	77.0	
Waterloo	2,660.8	2,668.9	2,729.2		60.3
Watford	186.3	185.0	192.5		7.5
Welland	3,576.4	3,918.2	3,758.7	159.5	
Wellesley	97.7	94.7	95.2		0.5
West Lorne	105.9	98.6	97.0	1.6	
Weston	2,453.1	2,790.8	2,706.4	84.4	
Wheatley	143.1	123.7	117.1	6.6	
Windsor	23,029.9	20,550.3	19,979.4	570.9	
Woodbridge	247.9	261.4	304.7		43.3
Woodstock	4,785.5	4,950.4	4,731.9	218.5	
Wyoming	64.6	75.2	65.8	9.4	
York, East, Township	5,504.0	5,330.7	5,656.4		325.7
York, North, Township	2,829.7	2,890.0	3,188.8		298.8
Zurich	76.4	64.8	71.4		6.6

NIAGARA SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Acton	10.0	10.0	10.0		
Ailsa Craig	5.6	5.6	5.6		
Alvinston	3.2	3.2	3.1	0.1	
Amherstburg	533.7	496.7	412.0	84.7	
Aylmer	294.4	291.1	317.5		26.4
Ayr	42.5	42.5	42.5		
Baden	398.6	367.1	378.2		11.1
Beamsville	1,061.1	1,030.7	1,043.7		13.0
Belle River	254.9	220.0	172.3	47.7	
Blenheim	143.6	118.5	144.2		25.7
Bond Lake	897.2	926.4	999.2		72.8
Bothwell	115.6	89.0	99.4		10.4
Brampton	133.3	130.0	132.7		2.7
Brant	464.9	434.4	490.4		56.0
Brigden	38.0	31.5	35.2		3.7
Burford	155.9	170.5	148.0	22.5	
Caledonia	322.0	300.5	323.2		22.7
Chatham	441.3	473.5	479.2		5.7
Chippawa	102.2	99.2	122.5		23.3
Clinton	125.2	121.7	122.6		0.9

NIAGARA SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934—Continued

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Delaware	265.3	299.5	285.8	13.7	
Dorchester	329.4	269.2	312.0		42.8
Dresden	34.6	42.2	43.3		1.1
Drumbo	79.2	59.0	95.4		36.4
Dundas	578.3	582.6	695.7		113.1
Dunnville	42.0	42.0	39.0	3.0	
Dutton	122.8	126.0	127.3		1.3
Elmira	79.6	70.2	79.7		9.5
Elora	105.7	98.2	104.2		6.0
Essex	201.0	189.6	199.6		10.0
Exeter	245.5	235.3	252.7		17.4
Forest	28.0	28.0	28.0		
Galt	197.9	181.3	184.7		3.4
Georgetown	134.8	124.9	132.7		7.8
Goderich	84.0	84.2	84.2		
Grantham Township	527.1	611.1	630.1		19.0
Guelph	415.5	411.5	434.1		22.6
Haldimand	240.0	164.0	200.6		36.6
Harriston	23.9	20.0	16.6	3.4	
Harrow	345.1	323.6	286.8	36.8	
Ingersoll	329.8	337.8	369.7		31.9
Jordan	320.0	282.0	324.8		42.8
Keswick	381.6	395.8	350.0	45.8	
Kingsville	545.8	453.5	500.3		46.8
Listowel	131.9	132.7	140.2		7.5
London	1,509.0	1,523.7	1,559.0		35.3
Lucan	64.6	60.2	52.0	8.2	
Lynden	177.2	166.5	173.2		6.7
Markham	453.0	423.8	407.3	16.5	
Merlin	175.2	177.5	167.0	10.5	
Milton	128.2	140.0	181.6		41.6
Milverton	69.5	65.5	84.3		18.8
Mitchell	187.8	172.2	185.0		12.8
Newmarket	255.7	225.3	267.1		41.8
Niagara	434.5	395.9	527.0		131.1
Norwich	202.3	241.3	252.3		11.0
Oil Springs	44.9	45.5	39.9	5.6	
Palmerston	37.5	48.0	54.7		6.7
Petrolia	25.3	25.3	25.3		
Preston	848.2	854.7	830.2	24.5	
Ridgetown	260.8	227.9	258.8		30.9
St. Jacobs	218.5	268.8	239.5	29.3	
St. Marys	210.4	183.8	194.6		10.8
St. Thomas	469.3	483.2	629.4		146.2
Saltfleet	1,029.9	966.1	962.1	4.0	
Sandwich	1,001.9	908.0	940.6		32.6
Sarnia	466.4	485.3	491.1		5.8
Scarboro	296.6	358.4	371.7		13.3
Seaforth	47.8	53.2	53.7		0.5
Simcoe	231.0	205.4	229.1		23.7

NIAGARA SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934—Concluded

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Stamford	185.1	156.5	194.3		37.8
Stratford	164.9	104.6	116.9		12.3
Strathroy	95.0	93.2	109.6		16.4
Streetsville	324.3	251.1	318.4		67.3
Tavistock	194.4	153.6	169.7		16.1
Thamesville	100.9	108.6	97.9	10.7	
Tilbury	119.4	134.6	122.0	12.6	
Tillsonburg	302.4	314.4	324.9		10.5
Wallaceburg	179.8	173.1	193.0		19.9
Walsingham	150.8	144.3	182.0		37.7
Walton	70.7	82.8	63.7	19.1	
Waterdown	906.5	676.2	763.1		86.9
Waterford	158.2	174.9	218.2		43.3
Watford	16.4	22.0	25.7		3.7
Welland	1,161.8	1,079.1	1,083.6		4.5
Woodbridge	550.0	537.9	512.9	25.0	
Woodstock	487.4	483.3	512.8		29.5

GEORGIAN BAY SYSTEM

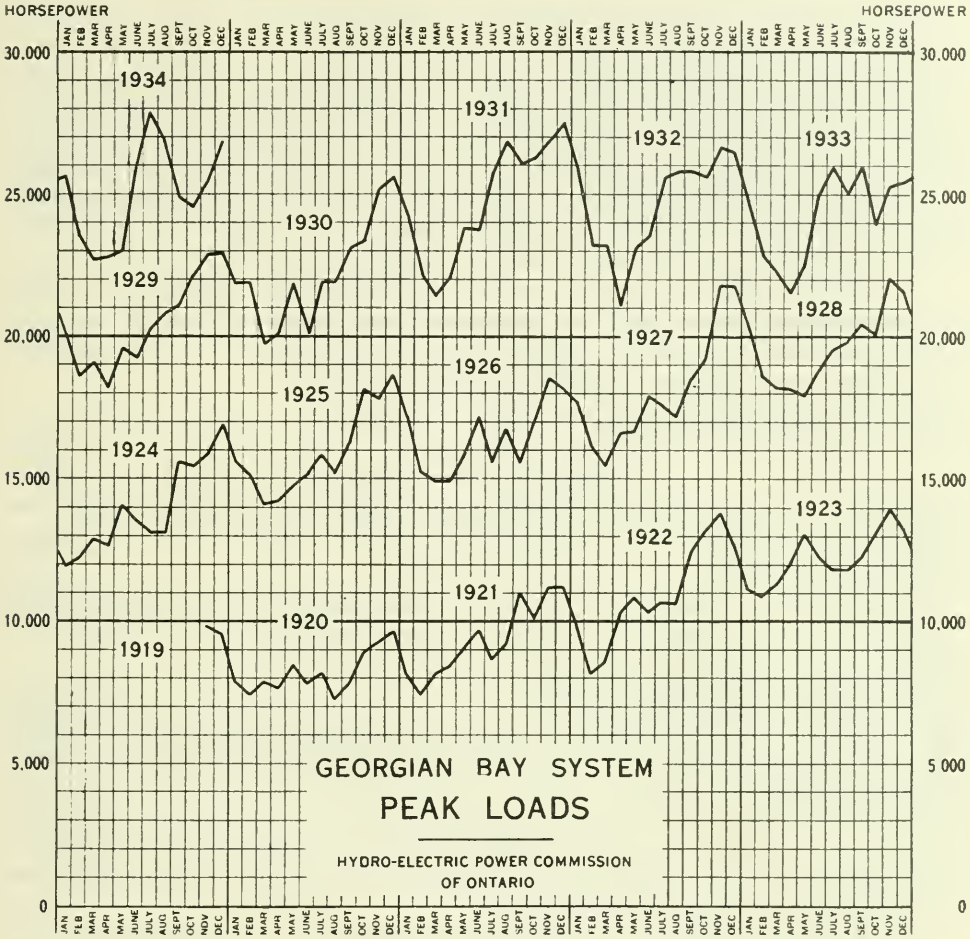
The Georgian Bay system peak load increased nearly five per cent over the peak last year and the average load about six per cent. This increase is not a result of unusual activity in one or two municipalities only, but is due to general improvement throughout the system.

Storage water reserves in this system have been reasonably well maintained by supplying, through the Hanover frequency-changer set, a large amount of power from the Niagara system. It is necessary to maintain water levels, for navigation, in Lake of Bays and lakes Couchiching and Simcoe, and these lakes supply the greater part of the storage water reserves for use in this system. The regulation of these lakes is not under the jurisdiction of the Commission.

Power was supplied to the Orillia Water, Light and Power Commission in November and June, also from August until October, because, due to reduced flows in the Severn river and to equipment being out of service for repairs, the Orillia Commission's plant at Swift rapids was unable to carry the total Orillia load.

Generating Stations

At Eugenia Falls generating station all oil-circuit breakers and electrolytic lightning arresters were overhauled. The No. 1 Johnson valve was dismantled, and new monel metal rings were installed and welded in place in the body and nose of the casing and plunger. The old wood section of No. 1 pipe line was replaced by a complete new wood-stave pipe of approximately 3,275 feet in length. The erection of the new wood-stave section was completed and No. 1 pipe line returned to service October 1.



GEORGIAN BAY SYSTEM
PEAK LOADS

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO

NOTE:—The Georgian Bay system includes the Severn, Eugenia, Wasdells, Muskoka and Bala districts. In the diagram the load for the Muskoka district is not included until November, 1924. Details respecting this load for preceding years are given in earlier annual reports. The load of the new district at Bala is not included in above graph until April, 1931, previous meter records being incomplete.

Hanover generating station has been operated about twelve hours per day for the greater part of the year by the operators at the near-by Hanover frequency-changer station.

Southampton generating station was not operated. Tests and repairs considered necessary to keep the equipment in a safe condition were made and the plant is available for service when required.

At Walkerton generating station new timber headgates were built and installed at the entrance to the headrace canal. Minor adjustments and repairs were made to the turbines and the plant was maintained in good working order.

At Hanover frequency-changer station two 7,500-volt outdoor potheads were badly damaged May 17, by an explosion resulting from a failure of the cable between the indoor and outdoor 4,400-volt buses. New potheads were installed.

At Big Chute generating station, a new and larger brake drum was installed on No. 4 unit.

At South Falls generating station, No. 1 and No. 3 turbines were inspected. Indicating lamps were installed to indicate failure of direct-current service in Trethewey Falls generating station and failure of generator lubricating oil pressure in Hanna Chute generating station. An examination of the concrete in the dam revealed a bad crack in the third pier from the north, also spalling and cracking of the concrete around the stop-log check angle irons. Repairs were made by bolting two heavy timbers to the pier.

At Hanna Chute generating station, the gear-driven oil pump for circulating lubricating oil through the generator bearings, which, due to wearing of the gear teeth, had given trouble from time to time, was replaced with a separate automatically controlled motor-driven unit.

At Trethewey Falls generating station repairs were made to the shallow spillwall section of the dam.

At Bala No. 1 generating station, three 2,300-volt lightning arresters on Bala feeder were destroyed by lightning and were replaced. No. 2 generator was damaged by lightning on two occasions and it was necessary to replace fifteen armature coils.

At Bala No. 2 generating station, a broken turbine gate was replaced. The timber deck beams over the intake were replaced with steel beams.

Transformer and Distributing Stations

At Hanover distributing station, in preparation for a test run, assistance was given to the Hanover Public Utilities Commission in drying out its synchronous condenser.

At Orangeville distributing station a 250-kv-a. single-phase transformer failed July 12, following severe lightning storms. This transformer was shipped to Toronto for repairs. One of the 25,000-volt lightning arresters which was destroyed by lightning was replaced.

At John E. Russell Co. distributing station the low-voltage bus was removed and a new bus erected using larger conductor as the old bus had given evidence of being overheated. Two of the transformers were given a general overhaul by removing the cores and scraping all deposits from the winding and ventilating ducts.

At Alliston distributing station the 75-kv-a. transformer was damaged by lightning July 30. Repairs were made at the manufacturer's factory and the transformer was returned to service September 1.

At Wasdells auto-transformer station, the surge absorbers were replaced with a new type. A 44,000-volt oil circuit-breaker bushing and a 44,000-volt air-insulated current transformer failed during the year. The bushing was replaced and the current transformer was repaired at the Commission's Production and Service department, Toronto.

Sixteen municipalities were assisted with the operation of their local distribution systems on thirty-six occasions.

Transmission Lines

To ensure continuity of service to the important area comprising Midland and adjacent district, the 22,000-volt lines between Waubaushene and Midland were rebuilt and some new lines constructed. Formerly there were two lines from Waubaushene to Midland which were built by the Simcoe Railway and Power Company in 1909 and purchased by the Commission in 1914. A third line was built from Waubaushene in 1928, ending at the short tap line from Tiffin Elevator junction to Tiffin elevator. The two old circuits between Waubaushene and the Wye river were taken down and rebuilt into one new circuit. From the Wye river a new pole line was built paralleling the former No. 3 line to where it terminated, and a new double-circuit line was constructed from this point to Aberdeen Elevator junction, where it was connected to the former No. 1 and No. 2 lines.

The right-of-way from Waubaushene to Big Chute generating station and from Big Chute generating station to Bala was cleared.

To conform with specifications of the Board of Railway Commissioners for Canada, the power lines at railway and telephone crossings were reinforced between Eugenia generating station and Collingwood, between Hanover and Chesley, and between Kilsyth and Southampton.

Due to changes in highway location, extensive alterations to the line between Dundalk and Flesherton were necessary. It was also necessary to move or lower a number of poles at Eugenia village and between Stayner and Creemore due to highway work.

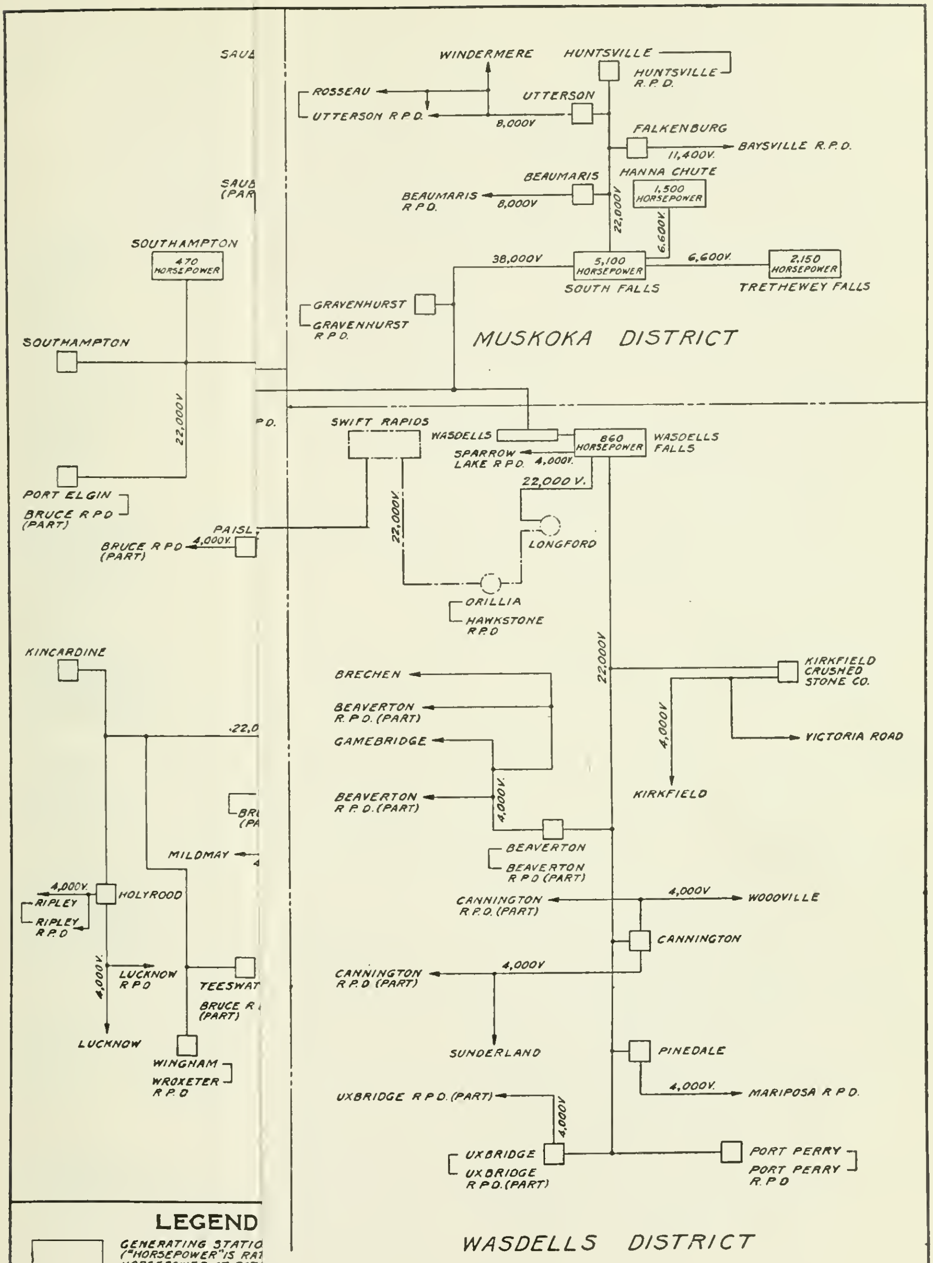
Over the whole system 58 defective poles were replaced, 427 poles were reinforced by the addition of stubs, and approximately 7,000 poles received preservative treatment at the ground line. Approximately 7,800 defective insulator pins, 2,000 defective insulators and 700 defective crossarms were replaced. There were a number of breaks in power cable and guys during the extremely cold periods experienced last winter; otherwise no serious damage resulted from unusual weather conditions.

GEORGIAN BAY SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Alliston	227.9	198.0	212.3		14.3
Arthur	128.9	132.7	136.7		4.0
Bala	118.0	120.0	109.0	11.0	
Barrie	2,381.1	2,195.6	2,228.3		32.7
Beaverton	216.4	179.7	175.0	4.7	
Beeton	106.6	114.3	105.7	8.6	
Bradford	134.9	140.0	161.9		21.9
Brechin	56.3	45.4	47.5		2.1
Camp Borden	320.0	263.4	247.0	16.4	
Cannington	161.9	152.8	141.2	11.6	
Chatsworth	53.2	61.2	53.2	8.0	
Chesley	407.5	464.0	423.6	40.4	
Coldwater	257.3	234.6	245.3		10.7
Collingwood	1,339.9	1,293.8	1,139.1	154.7	
Cookstown	59.0	52.9	65.7		12.8

GEORGIAN BAY SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934—Continued

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Creemore	121.4	96.0	104.5		8.5
Dundalk	148.8	163.0	145.0	18.0	
Durham	392.1	712.3	337.2	375.1	
Elmvale	147.4	148.8	134.8	14.0	
Elmwood	65.1	51.3	63.1		11.8
Flesherton	79.8	75.9	87.2		11.3
Grand Valley	123.8	108.3	101.2	7.1	
Gravenhurst	574.0	672.5	657.4	15.1	
Hanover	1,042.9	910.4	966.7		56.3
Hepworth	24.1	25.7	26.9		1.2
Holstein	18.7	16.6	16.6		
Huntsville	1,047.0	955.8	886.9	68.9	
Kincardine	407.5	564.3	560.8	3.5	
Kirkfield	28.6	22.8	26.9		4.1
Lucknow	187.0	222.5	243.9		21.4
Markdale	149.4	179.4	152.4	27.0	
MacTier	145.0	111.0	122.0		11.0
Meaford	394.7	395.4	413.5		18.1
Midland	3,345.6	2,408.6	2,709.9		301.3
Mildmay	66.7	71.5	74.5		3.0
Mount Forest	328.4	329.5	373.7		44.2
Neustadt	30.0	34.0	34.8		0.8
Orangeville	621.0	585.4	518.8	66.6	
Owen Sound	3,338.5	3,077.0	3,205.6		128.6
Paisley	114.4	118.6	117.9	0.7	
Penetanguishene	561.1	658.7	649.5	9.2	
Port Carling	128.0	105.0	70.0	35.0	
Port Elgin	201.8	262.5	218.7	43.8	
Port McNicoll	90.2	83.5	77.3	6.2	
Port Perry	179.8	156.6	209.4		52.8
Priceville	16.0	16.7	17.8		1.1
Ripley	58.9	60.3	60.3		
Rosseau	35.1	30.0	48.3		18.3
Shelburne	197.9	192.9	235.0		42.1
Southampton	235.9	205.9	242.0		36.1
Stayner	203.2	169.3	195.0		25.7
Sunderland	63.0	60.0	57.9	2.1	
Tara	87.7	82.2	72.4	9.8	
Teeswater	114.9	112.4	113.1		0.7
Thornton	18.3	17.9	27.6		9.7
Tottenham	64.3	62.2	59.9	2.3	
Uxbridge	205.8	202.2	209.2		7.0
Victoria Harbour	76.4	77.3	65.4	11.9	
Victoria Road	10.0	10.0	10.0		
Walkerton	419.9	463.1	451.8	11.3	
Waubaushene	58.3	56.3	38.4	17.9	
Wiarton	220.1	232.2	234.9		2.7
Windermere	31.0	33.0	24.6	8.4	
Wingham	209.3	290.5	371.8		81.3
Woodville	61.0	55.2	55.6		0.4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470 HORSEPOWER
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RIPLEY R.P.D
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BRUCE R
(PART)
WINGHAM
WROXETER R.P.D
WINDERMERE
HUNTSVILLE
HUNTSVILLE R.P.D.
ROSSEAU
UTTERSON R.P.D.
8,000V
UTTERSON
FALKENBURG
11,400V.
BAYSVILLE R.P.D.
HANNA CHUTE
1,500 HORSEPOWER
BEAUMARIS
BEAUMARIS R.P.D.
8,000V
22,000V
6,600V.
38,000V
5,100 HORSEPOWER
SOUTH FALLS
6,600V.
2,150 HORSEPOWER
TRETHEWEY FALLS
GRAVENHURST
GRAVENHURST R.P.D.
MUSKOKA DISTRICT
SWIFT RAPIDS
WASDELLS
860 HORSEPOWER
WASDELLS FALLS
SPARROW LAKE R.P.D.
4,000V.
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LONGFORD
ORILLIA
HAWKSTONE R.P.D
22,000V
KIRKFIELD CRUSHED STONE CO.
4,000V
VICTORIA ROAD
KIRKFIELD
BRECHEN
BEAVERTON R.P.D. (PART)
GAMEBRIDGE
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WASDELLS DISTRICT

LEGEND

GENERATING STATIO
("HORSEPOWER" IS RAT
HORSEPOWER AT RATE

SWITCHING STATION

FREQUENCY CHANGER

DISTRIBUTING STATI

MUNICIPAL STATION

STATIONS & LINES IN

STATIONS & LINES N
PROPERTY

R P D RURAL POWER DISTR

AUTO TRANSFORMER

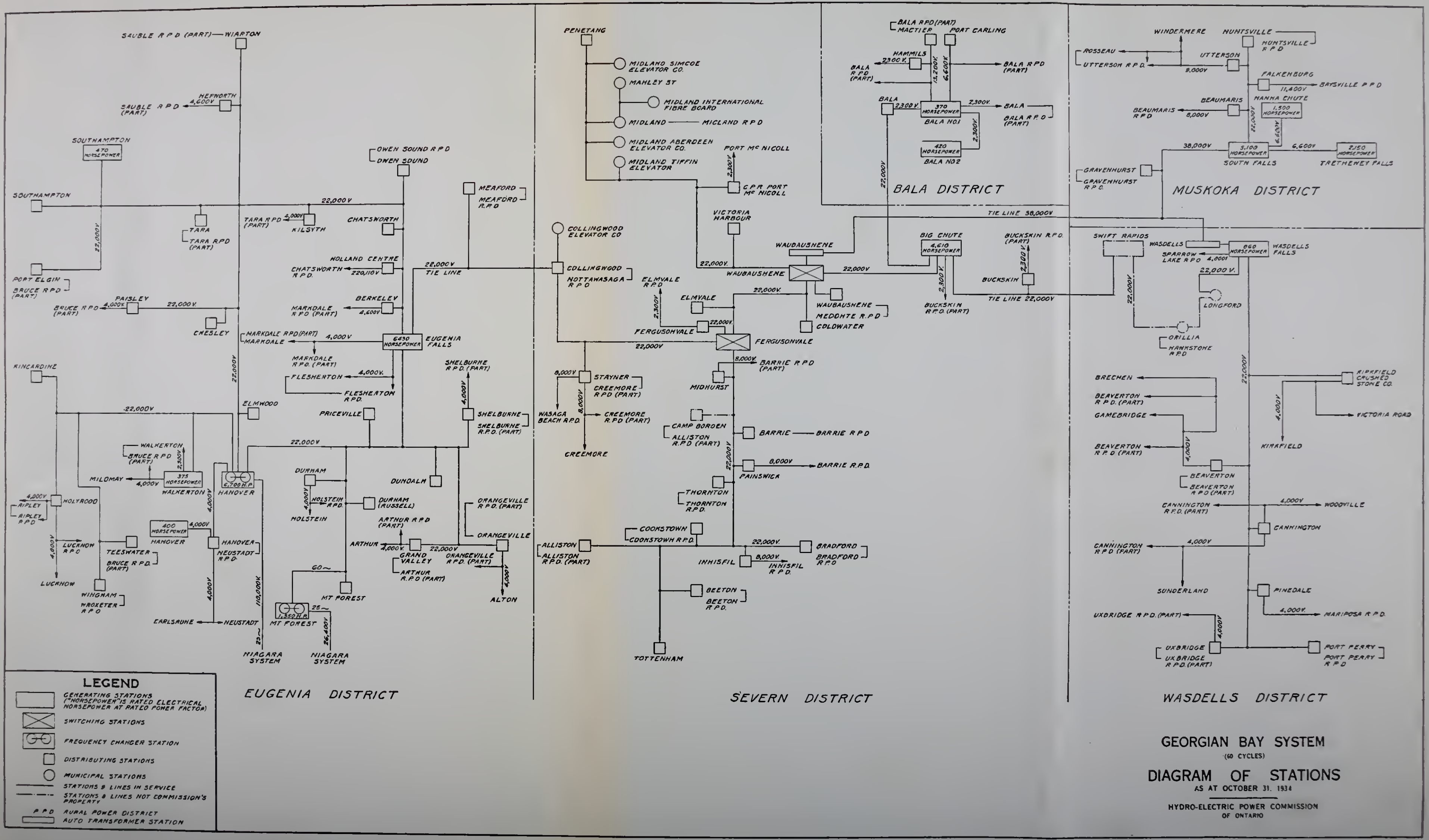
GEORGIAN BAY SYSTEM

(60 CYCLES)

DIAGRAM OF STATIONS

AS AT OCTOBER 31. 1934

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO


SAUBLE R.P.D (PART) — WIARTON
HEPWORTH
4,600V
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SOUTHAMPTON 470 HORSEPOWER
SOUTHAMPTON
22,000V
TARA
TARA R.P.D (PART)
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KILSYTH
PORT ELGIN
BRUCE R.P.D (PART)
PAISLEY
BRUCE R.P.D (PART) 4,000V
CHESLEY
OWEN SOUND R.P.D
OWEN SOUND
MEAFORD
MEAFORD R.P.D
CHATSWORTH
HOLLAND CENTRE
CHATSWORTH R.P.D. 220/110V
22,000V TIE LINE
BERKELEY
MARKDALE R.P.D (PART) 4,600V
MARKDALE R.P.D (PART)
MARKDALE
4,000V
6430 HORSEPOWER EUGENIA FALLS
MARKDALE R.P.D. (PART)
FLESHERTON 4,000V
FLESHERTON R.P.D
SHELBURNE R.P.D. (PART)
KINCARDINE
ELMWOOD
PRICEVILLE
SHELBURNE
SHELBURNE R.P.D. (PART)
WALKERTON
BRUCE R.P.D (PART)
2,300V
MILDMAY
375 HORSEPOWER WALKERTON
6,700 H.P. HANOVER
DURHAM
DUNDALK
HOLYROOD
RIPLEY
RIPLEY R.P.D
LUCKNOW R.P.D
LUCKNOW
400 HORSEPOWER HANOVER
TEESWATER
BRUCE R.P.D. (PART)
WINGHAM
WROXETER R.P.D
HANOVER
NEUSTADT R.P.D
EARLSRUHE
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25~
NIAGARA SYSTEM
10,000V
HOLSTEIN R.P.D.
HOLSTEIN
DURHAM (RUSSELL)
ARTHUR R.P.D (PART)
ARTHUR
GRAND VALLEY
ARTHUR R.P.D (PART)
ORANGEVILLE R.P.D. (PART)
ORANGEVILLE
ORANGEVILLE R.P.D. (PART)
ALTON
60~
MT FOREST
1,350 H.P. MT FOREST
26,400V
NIAGARA SYSTEM
EUGENIA DISTRICT
PENETANG
MIDLAND SIMCOE ELEVATOR CO.
MAHLEY ST
MIDLAND INTERNATIONAL FIBRE BOARD
MIDLAND — MIDLAND R.P.D
MIDLAND ABERDEEN ELEVATOR CO.
MIDLAND TIFFIN ELEVATOR
PORT McNICOLL
2,300V
C.P.R. PORT McNICOLL
VICTORIA HARBOUR
COLLINGWOOD ELEVATOR CO
COLLINGWOOD
NOTTAWASAGA R.P.D
WAUBAUSHENE
ELMVALE R.P.D
ELMVALE
FERGUSONVALE
FERGUSONVALE
WAUBAUSHENE
MEDONTE R.P.D
COLDWATER
8,000V
BARRIE R.P.D (PART)
MIDHURST
STAYNER
CREEMORE R.P.D (PART)
WASAGA BEACH R.P.D
CREEMORE R.P.D (PART)
CREEMORE
CAMP BORDEN
ALLISTON R.P.D (PART)
BARRIE — BARRIE R.P.D
BARRIE R.P.D
PAINSWICK
THORNTON
THORNTON R.P.D.
COOKSTOWN
COOKSTOWN R.P.D
ALLISTON
ALLISTON R.P.D. (PART)
BRADFORD
BRADFORD R.P.D
INNISFIL
INNISFIL R.P.D.
BEETON
BEETON R.P.D.
TOTTENHAM
SEVERN DISTRICT
BALA R.P.D (PART)
MACTIER
PORT CARLING
HAMMILS
13,200V
6,600V
BALA R.P.D (PART)
BALA R.P.D (PART)
BALA
370 HORSEPOWER BALA NO1
BALA
BALA R.P.D (PART)
420 HORSEPOWER BALA NO2
BALA DISTRICT
TIE LINE 38,000V
BIG CHUTE 4,610 HORSEPOWER
BUCKSKIN R.P.D. (PART)
BUCKSKIN
BUCKSKIN R.P.D (PART)
TIE LINE 22,000V
WINDERMERE
HUNTSVILLE
HUNTSVILLE R.P.D
ROSSEAU
UTTERSON
UTTERSON R.P.D
FALKENBURG
11,400V
BAYSVILLE R.P.D
BEAUMARIS
HANNA CHUTE 1,500 HORSEPOWER
BEAUMARIS R.P.D
38,000V
5,100 HORSEPOWER SOUTH FALLS
2,150 HORSEPOWER TRETHEWEY FALLS
GRAVENHURST
GRAVENHURST R.P.D
MUSKOKA DISTRICT
SWIFT RAPIDS
WASDELLS
960 HORSEPOWER WASDELLS FALLS
SPARROW LAKE R.P.D
LONGFORD
ORILLIA
HAWKSTONE R.P.D
KIRKFIELD CRUSHED STONE CO.
BRECHIN
BEAVERTON R.P.D. (PART)
GAMEBRIDGE
VICTORIA ROAD
BEAVERTON R.P.D (PART)
KIRKFIELD
BEAVERTON
BEAVERTON R.P.D (PART)
CANNINGTON R.P.D. (PART)
WOODVILLE
CANNINGTON
CANNINGTON R.P.D (PART)
SUNDERLAND
PINEDALE
MARIPOSA R.P.D
UXBRIDGE R.P.D. (PART)
UXBRIDGE
UXBRIDGE R.P.D. (PART)
PORT PERRY
PORT PERRY R.P.D
WASDELLS DISTRICT
LEGEND
GENERATING STATIONS (*HORSEPOWER* IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
SWITCHING STATIONS
FREQUENCY CHANGER STATION
DISTRIBUTING STATIONS
MUNICIPAL STATIONS
STATIONS & LINES IN SERVICE
STATIONS & LINES NOT COMMISSION'S PROPERTY
R.P.D. RURAL POWER DISTRICT
AUTO TRANSFORMER STATION

GEORGIAN BAY SYSTEM

(60 CYCLES)

DIAGRAM OF STATIONS

AS AT OCTOBER 31, 1934

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO

GEORGIAN BAY SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Alliston	107.1	69.3	74.5		5.2
Arthur	3.2	3.2	3.2		
Bala	61.0	93.0	144.0		51.0
Barrie	220.7	233.4	227.4	6.0	
Baysville	36.2	45.5	42.9	2.6	
Beaumaris	85.8	110.0	112.6		2.6
Beaverton	157.3	137.6	131.6	6.0	
Beeton	2.0	5.0	5.0		
Bradford	46.7	42.8	46.1		3.3
Bruce	61.1	103.3	94.7	8.6	
Buckskin	13.0	12.0	17.9		5.9
Cannington	44.0	35.7	50.5		14.8
Chatsworth	10.3	8.9	8.7	0.2	
Cookstown	0.8	0.8	0.8		
Creemore	56.2	55.0	55.0		
Elmvale	72.4	66.3	65.5	0.8	
Flesherton	7.3	8.0	7.7	0.3	
Gravenhurst	37.2	27.7	26.7	1.0	
Hawkestone	84.1	93.4	101.8		8.4
Huntsville	20.0	48.2	59.5		11.3
Innisfil	162.2	191.7	179.6	12.1	
Mariposa	151.4	136.2	142.9		6.7
Markdale	20.9	33.4	37.9		4.5
Medonte	17.0	21.0	20.0	1.0	
Midland	19.0	21.0	22.0		1.0
Nottawasaga	30.3	28.1	32.8		4.7
Orangeville	33.1	34.9	36.1		1.2
Owen Sound	10.0	53.0	37.0	16.0	
Port Perry	121.8	141.0	112.0	29.0	
Ripley	10.0	10.3	10.3		
Sauble	8.8	12.3	9.2	3.1	
Shelburne	21.1	29.3	31.1		1.8
Sparrow Lake	119.8	124.1	128.7		4.6
Tara	54.0	50.0	51.5		1.5
Thornton	12.7	16.3	13.1	3.2	
Utterson	35.0	43.9	35.0	8.9	
Uxbridge	104.5	105.1	97.4	7.7	
Wasaga Beach	92.5	114.6	86.0	28.6	
Wroxeter	99.5	106.2	106.7		0.5

EASTERN ONTARIO SYSTEM

The pronounced recovery in the load of the Eastern Ontario system which first became apparent during the latter part of April, 1933, continued at approximately the same rate of increase until the end of June, 1934, and, while the rate was somewhat checked in July, an appreciable gain continued until the end of the fiscal year. The system monthly peaks and average loads have shown a substantial increase over the previous year, and since February the monthly peak loads have exceeded all recorded maximum peak loads for corresponding months in any year. These comments relate to the system primary load.

The fiscal year ended October 31, 1934, is the first year in which there has been a market in the Eastern Ontario system for secondary power. Secondary power was supplied to the Gatineau Power Company on December 6, 1933, and was continued until April 5, 1934, during which period this system disposed of approximately 41,000,000 kilowatt-hours.

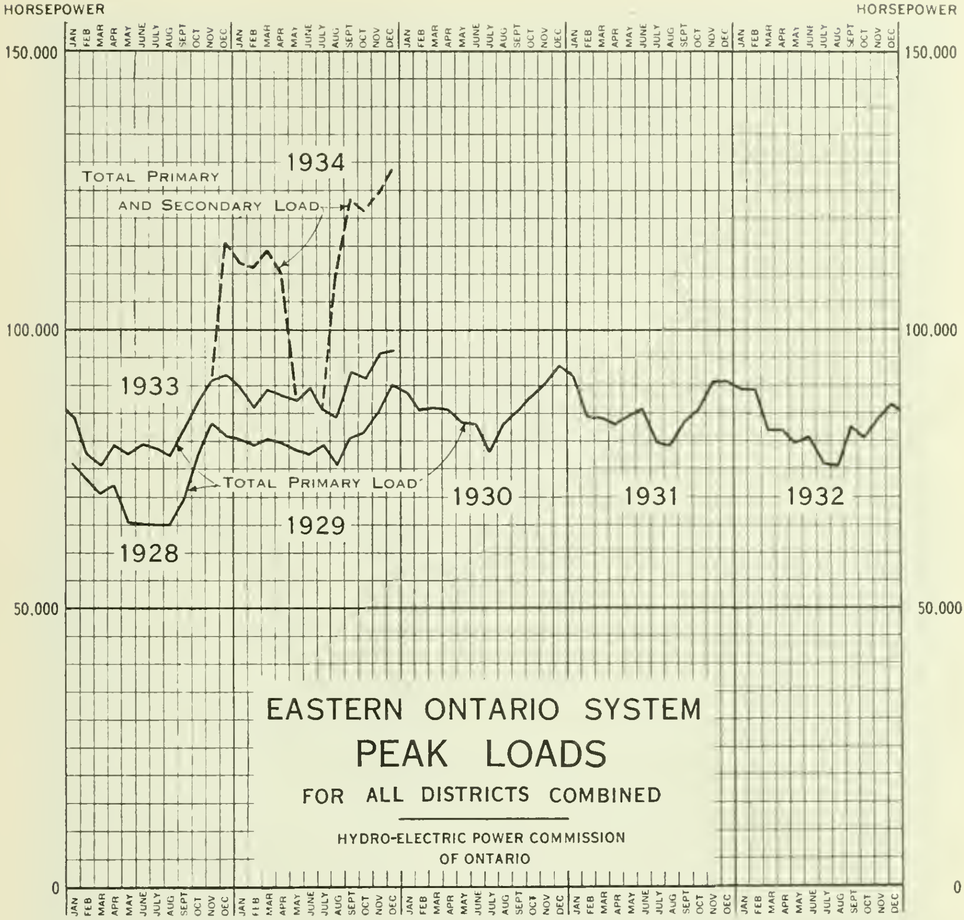
With the construction of a new 110,000-volt steel-tower line between Ottawa and Cornwall, a direct supply of Gatineau power was made available to the St. Lawrence district, making it possible to discontinue the supply from the Cedars Rapids Transmission Company. The contract with this Company was cancelled as of December 31, 1933, but was extended, by agreement, as a temporary supply on a month-to-month basis until July 31, 1934. Since this time all power fed into the St. Lawrence district has been supplied from the interconnected system generating sources and the Gatineau Power Company.

The 110,000-volt Ottawa-Cornwall line was extended to the Howard Smith Paper Company in Cornwall in order to provide a supply of secondary power for steam generation in accordance with an agreement made earlier in the year. The steam generator, with a rated capacity of 20,000 kilowatts was placed in regular service on August 23. The demand on this generator quickly reached its full capacity, and except for normal week-end reductions or inspection shut-downs, the generator has continued to operate at full capacity.

Because of limited stream flow and tie-line capacity, sufficient energy could not be delivered from the Eastern Ontario system sources alone to operate the steam generator at full capacity. Arrangements were therefore made with the Gatineau Power Company, at no additional cost to the Commission, for additional energy under the 60-cycle contract, with a corresponding reduction on the 25-cycle contract. By this arrangement the disposal of a maximum amount of surplus energy was made possible. Up to October 31, the steam generator had taken a total of 28,249,500 kilowatt-hours, of which 15,094,518 kilowatt-hours, or 53 per cent, was derived from Eastern Ontario system sources, and 13,154,982 kilowatt-hours, or 47 per cent, was obtained by transfer from the Niagara system.

It is of interest to note that, on three occasions during periods of low stream flow on the Trent river during the past fiscal year, the weekly average surplus capacity available on the normally interconnected parts of the system in excess of firm load requirements, was limited to less than 5,000 horsepower.

During the year the usual programme of general plant inspection and maintenance work was carried out. With one or two exceptions all turbines were unwatered and inspected, and minor repairs and adjustments made. Whenever possible forebays were unwatered, concrete inspected, and all sunken debris removed. The governors in the various plants were inspected and adjusted. Practically all high-tension oil-breakers on the system were overhauled at least once during the year. Some of the work is outlined in the following paragraphs.



Generating Stations

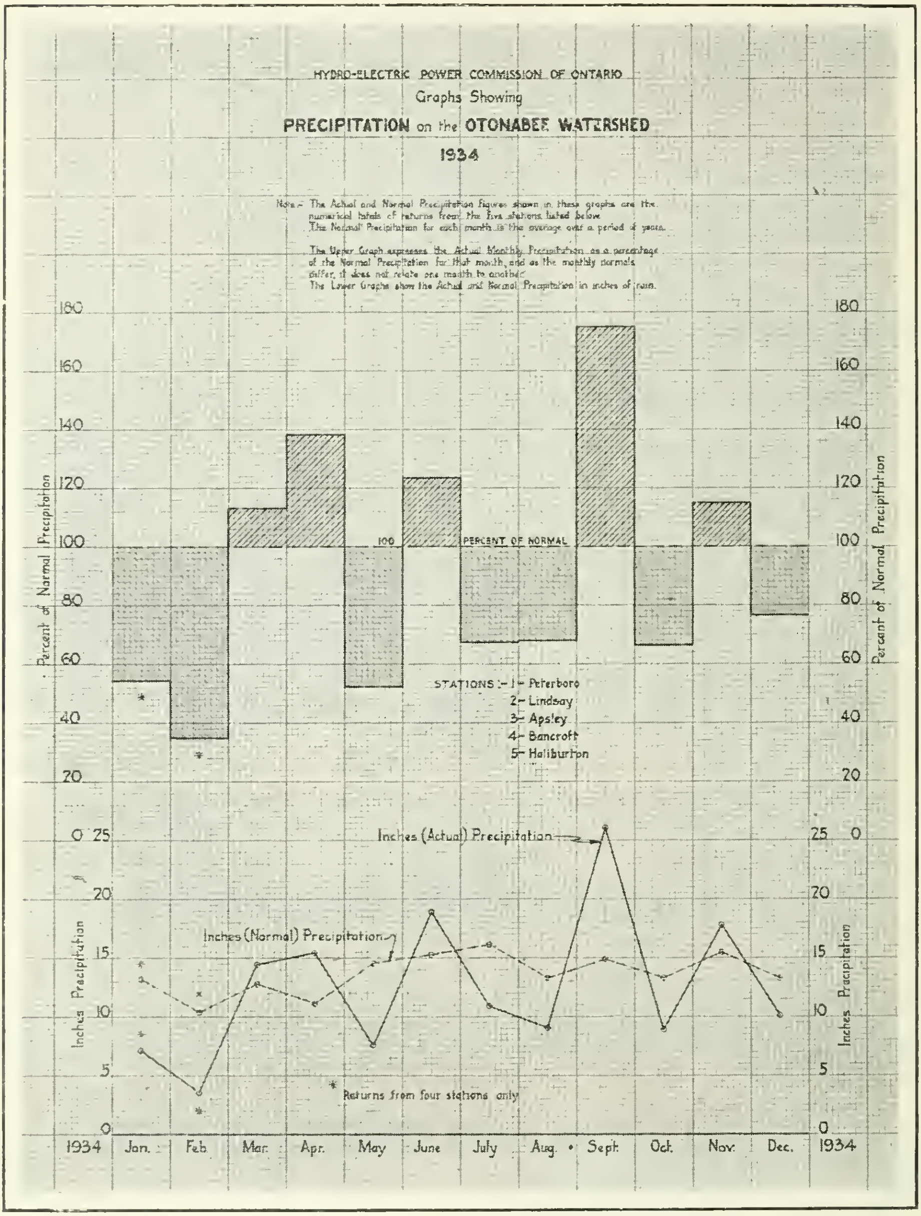
At Meyersburg, plant No. C-8, due to damage by erosion, extensive welding was carried out on the runner of one turbine, using stainless steel as a final coating.

At Ranney Falls, plant No. C-10, the lignum vitae bearings on both turbines were adjusted, and the head-gate winches were overhauled. The electrolytic lightning arresters on one of the 44,000-volt lines were overhauled, 56 defective cones being replaced.

At Seymour, plant No. C-11, all the main turbines and the exciter turbine were overhauled. On one generator twelve coils which burned out during an electrical storm were replaced.

At Heely Falls, plant No. C-14, and at Auburn, plant No. C-18, the turbines were thoroughly inspected but only minor repairs and adjustments were necessary.

At Fenelon Falls, plant No. C-30, some work was necessary in order to prevent further undermining of the foundation, also, due to undermining of


HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO
Graphs Showing
PRECIPITATION on the OTONABEE WATERSHED
1934

Note – The Actual and Normal Precipitation figures shown in these graphs are the numerical totals of returns from the five stations listed below.
The Normal Precipitation for each month is the average over a period of years.

The Upper Graph expresses the Actual Monthly Precipitation as a percentage of the Normal Precipitation for that month, and as the monthly normals differ, it does not relate one month to another.
The Lower Graphs show the Actual and Normal Precipitation in inches of rain.

Percent of Normal Precipitation
180
160
140
120
100
80
60
40
20
0
100
PERCENT OF NORMAL
STATIONS :- 1 - Peterboro
2 - Lindsay
3 - Apsley
4 - Bancroft
5 - Haliburton
Inches (Actual) Precipitation
Inches (Normal) Precipitation
Inches Precipitation
25
20
15
10
5
0
* Returns from four stations only
1934
Jan.
Feb.
Mar.
Apr.
May
June
July
Aug.
Sept.
Oct.
Nov.
Dec.
1934

PLATE A—PRECIPITATION DATA 1934

The upper graph represents the estimated actual monthly precipitation on the Otonabee watershed expressed as a percentage of the normal precipitation.

The estimate is based upon the actual and normal return of the Meteorological Service for Peterboro, Lindsay, Bancroft and Haliburton.

Although the numerical values differ from month to month the normal precipitation is taken as 100 per cent, hence the solidly hatched areas represent the amount by which the precipitation exceeded the average while the dotted hatched area represents in a similar manner the deficiencies.

The lower graph shows the actual and normal precipitation in inches of rain.

Graph No. 3 Average daily wastage at all H-E.P.C. plants. In the weekly aggregate the area under this graph equals the wastage represented by the dotted hatched area between curves 2 and 1a.
Graph No. 5—Midnight elevations of Rice Lake.
Graph No. 6—Midnight elevations of Heely-Hastings reach.

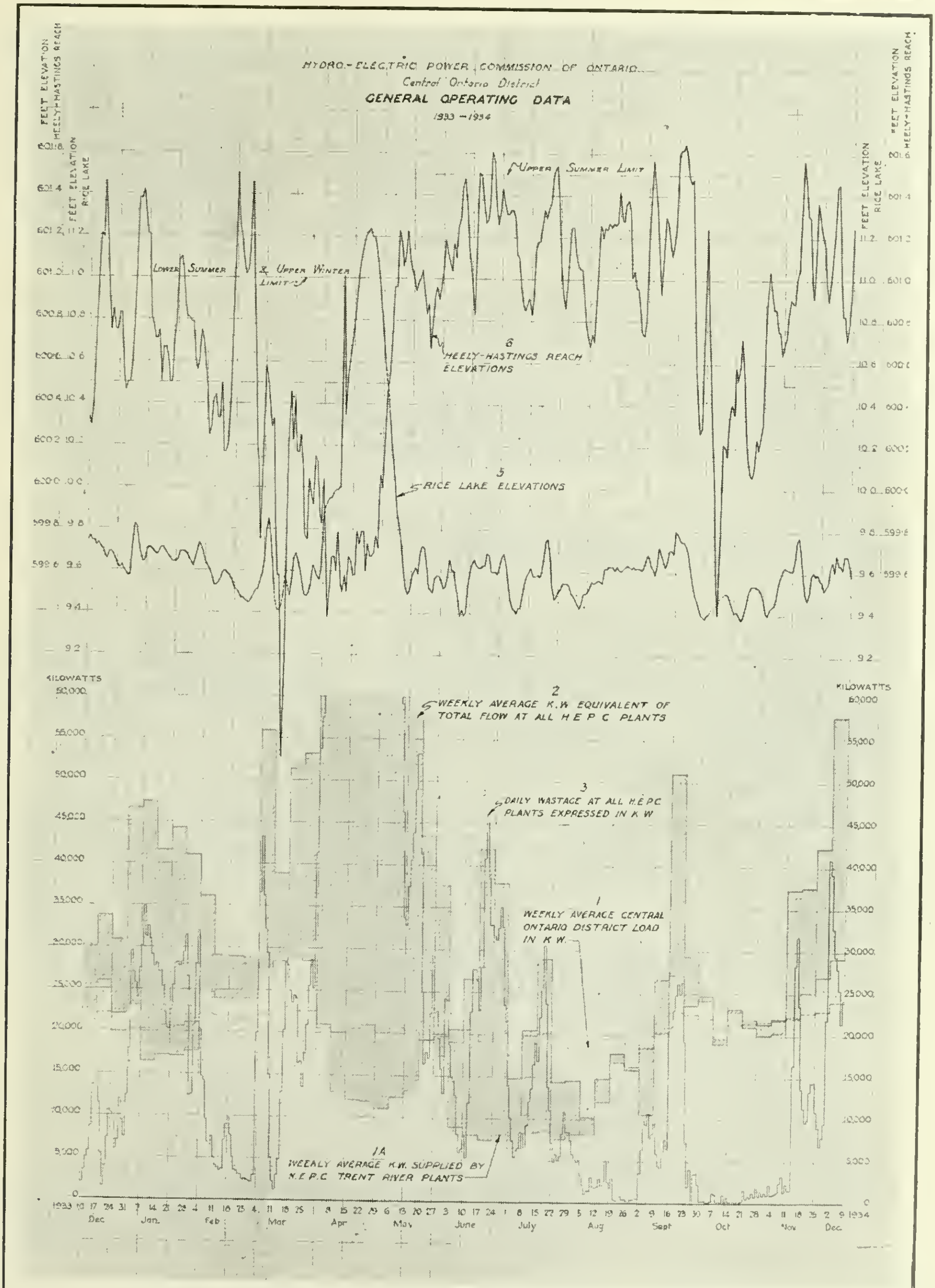


PLATE B—GENERAL OPERATING DATA

December 10, 1933, to December 9, 1934

Notes for Eastern Ontario District General Operating Data Curves

Graph No. 1—System average weekly load in kilowatts which includes power purchased from the Gatineau Power Company.

Graph No. 1a—Weekly average load in kilowatts supplied by H-E.P.C. plants on the Trent and Otonabee rivers.

Graph No. 2—Weekly average power equivalent of total flow at all H-E.P.C. Plants. This equals the weekly average load supplied by these plants, plus the power equivalent of the weekly average wastage at these plants. This wastage is shown by the dotted hatched area between curves 2 and 1a.

(Explanation continued on page 36, facing)

the floor, the switchboard had to be levelled and the turbine and generator shafts of both units lined up. The second 400-kv-a. generator failed in service under normal operating conditions on July 1. It may be recalled from last year's Annual Report that the first unit failed under similar circumstances last year. These machines are of the revolving-armature type and have been in service for more than thirty years. The failures were undoubtedly due to deterioration of the coil insulation. The armature was completely rebuilt; this included replacing one-fifth of the iron laminations and the re-insulation of all coils.

At High Falls generating station on the Mississippi river the wood-stave penstock was cleaned and treated with creosote.

At Calabogie generating station on the Madawaska river, no work other than the regular routine maintenance was necessary. The spare third unit, including turbine, generator and regulating devices, which had been stored at Calabogie but never installed, was shipped to the Rat Rapid development on the Albany river.

At Galetta generating station on the Mississippi river, a crack in the bulkhead wall of No. 1 unit was repaired.

Municipal, Distributing and Switching Stations

At Auburn transformer station the grounds were improved by grading, sodding and by planting seedling trees. This work was carried out in cooperation with the city of Peterboro.

At Belleville switching station an improved high-tension line and bus relay scheme was installed.

At Cataraqui rural station one of the 100-kv-a. single-phase transformers failed in service on August 17, and was replaced by a system reserve transformer. The defective transformer was repaired and returned to reserve stores on September 18.

At Marmora, due to the construction of a bridge over the Crow river and the consequent raising of the highway, it was necessary to construct a new station.

At McDonalds Corners, near Perth, a 25-kv-a., 26,000-volt rural substation was constructed.

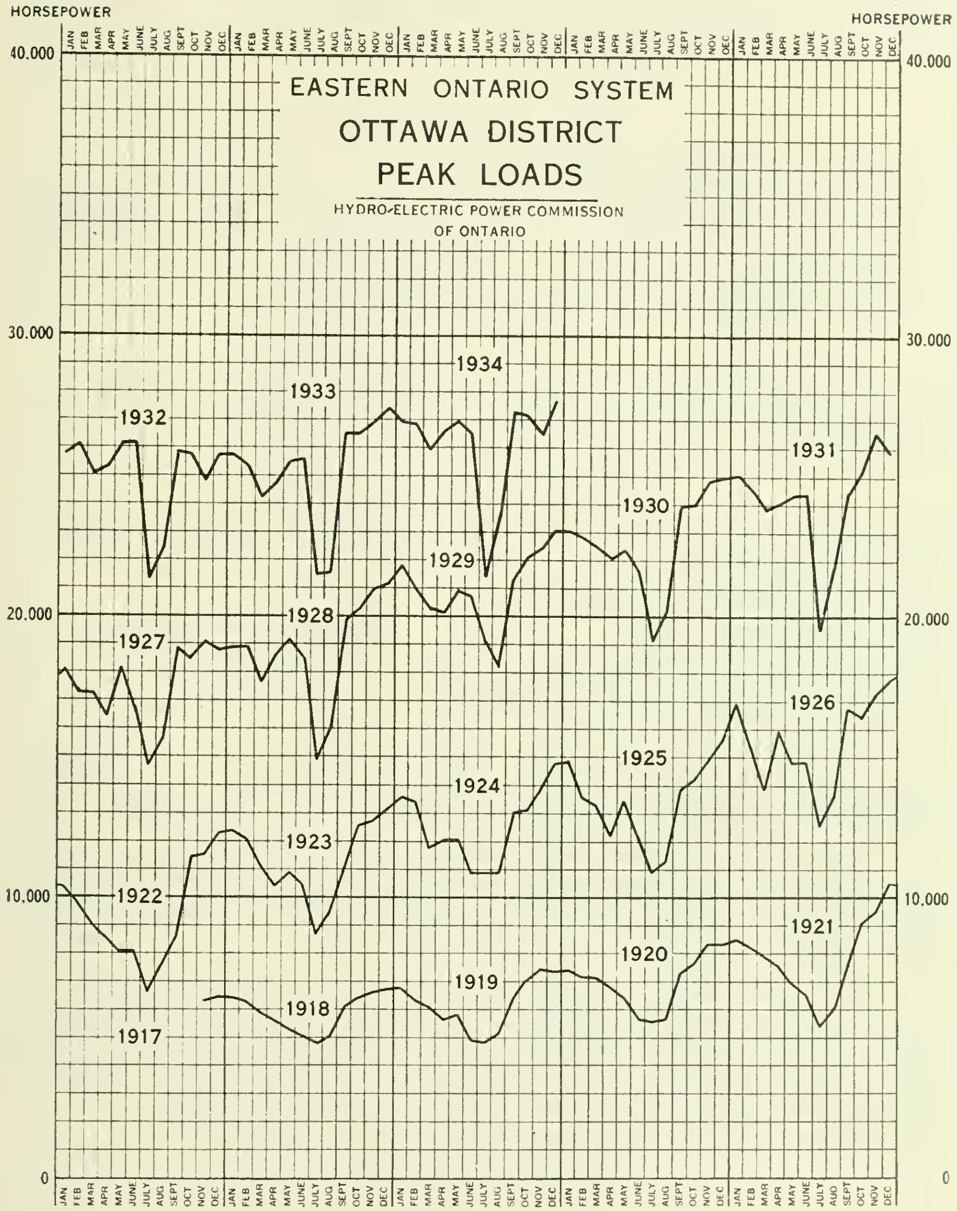
At Omemee distributing station a defective bushing was replaced in one of the 50-kv-a., 44,000-volt transformers.

At Oshawa No. 1 distributing station the 44,000-volt electrolytic lightning arresters were overhauled. A defective section of three conductor, No. 4/0, 4,500-volt lead-covered cable, approximately 100 feet in length, was replaced on one of the low-tension feeders. A set of three single-pole disconnecting switches was installed on the 44,000-volt bus for sectionalizing purposes and to facilitate work on the high-tension wiring.

At Port Hope switching station changes were made in the relay system.

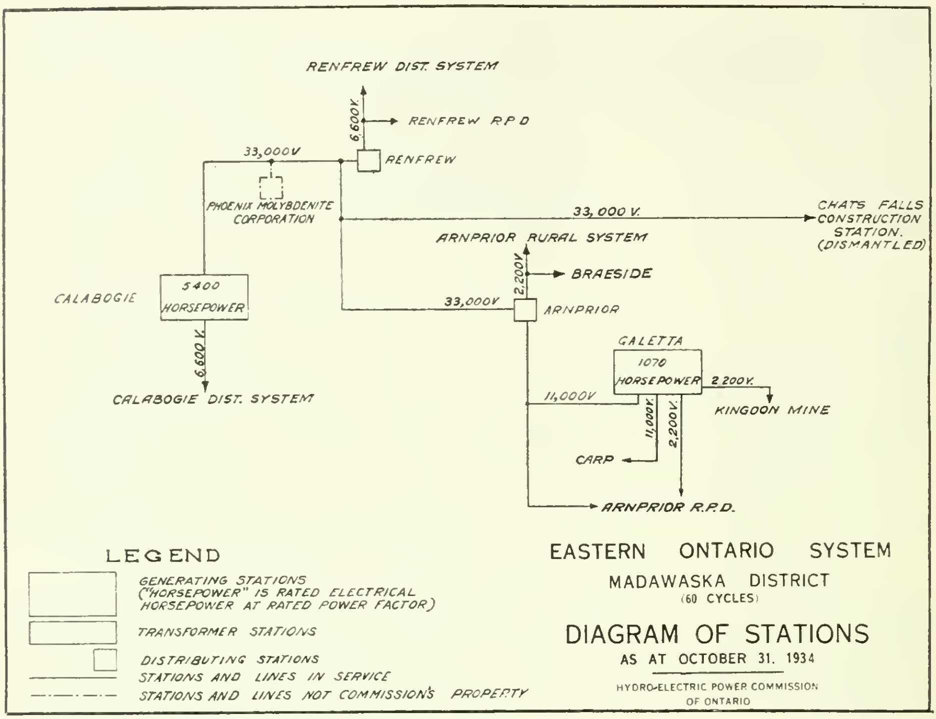
At Prescott distributing station a new low-tension relay system was placed in service on February 22.

At Renfrew transformer station protective and alarm devices were installed on the high-tension transformers and transformer oil-circulating system. The private telephone line was extended approximately 3,000 feet



not only to provide communication facilities but also remote alarm indication at the attendant's residence in the event of trouble. The above apparatus was installed as an operating economy, the station being now under the supervision of a standby attendant, instead of a full-time operator.

At Smiths Falls transformer station a defective bushing on the tertiary transformer was replaced. Polarity of the main transformer bank was changed in order to facilitate parallel operation of the 110,000-volt Ottawa-Kingston and Ottawa-Cornwall lines through the St. Lawrence district 44,000-volt lines.


RENFREW DIST. SYSTEM
6,600 V.
RENFREW R.P.D
33,000 V
RENFREW
PHOENIX MOLYBDENITE CORPORATION
33,000 V.
CHATS FALLS CONSTRUCTION STATION. (DISMANTLED)
ARNPRIOR RURAL SYSTEM
2,200 V.
BRAESIDE
CALABOGIE
5400 HORSEPOWER
33,000 V
ARNPRIOR
6,600 V.
GALETTA
1070 HORSEPOWER
2,200 V.
CALABOGIE DIST. SYSTEM
11,000 V
KINGOON MINE
11,000 V.
2,200 V.
CARP
ARNPRIOR R.P.D.
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
DISTRIBUTING STATIONS
STATIONS AND LINES IN SERVICE
STATIONS AND LINES NOT COMMISSION'S PROPERTY
EASTERN ONTARIO SYSTEM
MADAWASKA DISTRICT
(60 CYCLES)
DIAGRAM OF STATIONS
AS AT OCTOBER 31, 1934
HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

A condenser potential device was installed in the 44,000-volt neutral in order to provide for ground protection on the 44,000-volt line to Brockville.

At Cornwall transformer station alterations were made in order to replace the 110,000-volt power supply from the Cedars Rapids Transmission Company with the Gatineau supply which became available with the construction of the new 110,000-volt steel-tower line from Ottawa.

At the Commission's pulp mill in Campbellford, the substation was overhauled. The high-tension oil-breaker was made non-automatic and fuses were installed on a two-pole structure outside. One of the 1,125-kv-a., 3-phase transformers, which had been in service since 1911, burned out and was replaced with a similar transformer from the Campbellford stores. A number of defective coils were replaced in the 600-horsepower motor.

High-Voltage Transmission Lines

In addition to the annual programme of inspection and maintenance of high-tension transmission lines, approximately 380 poles were relocated due to highway improvements. Approximately 9,800 poles were inspected, of which over 800 were stubbed due to rot at the ground line, and more than 6,300 were treated with a chemical preservative. Approximately 11,000 insulators were inspected or tested, resulting in the replacement of 1,200 defective units. The usual programme of tree trimming and weed cutting was carried out on the various high-tension line sections. A number of highways, railway and foreign wire crossings were rebuilt to conform with present day standard requirements. In order to lessen damage to conductors caused by vibration, dampers were installed on certain sections of the 110,000-volt and 44,000-volt lines.

Meter Department and Repair Shops

An extensive programme of field work was carried out by the Meter department. A number of special tests relating to telephone interference, ground conductivity and voltage conditions were made at different points on the system. This department is also responsible for the operation and maintenance of all metering and relay equipment on the system, and is available on request to any of the municipalities wishing to have electrical measurements made or technical problems investigated.

The Belleville machine and meter repair shop has continued testing and repairing service meters for municipal and rural systems. 3,814 meters were adjusted and repaired, and 569 new meters were handled in this shop during the year. The usual programme of machine shop work in connection with hydraulic and electrical maintenance was carried out.

EASTERN ONTARIO SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934

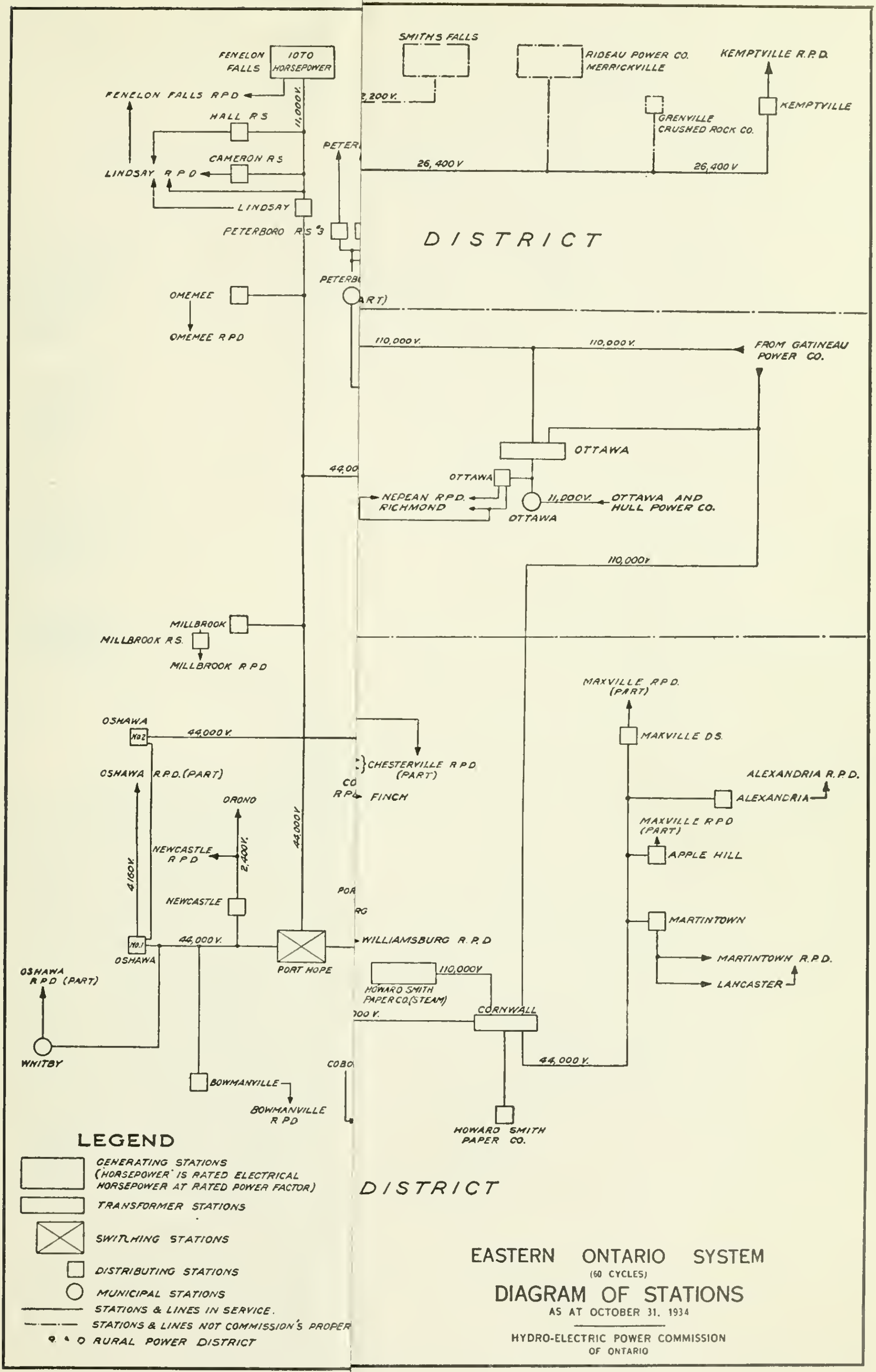
Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Alexandria	212.9	227.7	207.4	20.3	
Apple Hill	30.1	32.4	30.3	2.1	
Athens	82.4	74.4	74.4		
Bath	23.4	29.2	27.3	1.9	
Belleville	3,701.4	3,786.6	3,866.9		80.3
Bloomfield	73.4	76.1	76.3		0.2
Bowmanville	1,546.2	1,528.8	1,688.1		159.3
Brighton	270.7	279.9	267.8	12.1	
Brockville	2,380.1	2,329.1	2,497.3		168.2
Cardinal	139.7	142.3	148.4		6.1
Carleton Place	966.5	1,030.8	1,014.7	16.1	
Chesterville	191.1	159.9	170.1		10.2
Cobourg	1,424.7	1,501.3	1,317.7	183.6	
Colborne	163.6	126.8	137.0		10.2
Deseronto	148.6	118.5	126.6		8.1
Finch	42.3	44.9	43.5	1.4	
Hastings	65.2	73.9	87.4		13.5
Havelock	175.6	131.3	126.1	5.2	
Kemptville	241.3	246.2	272.1		25.9
Kingston	5,105.2	5,429.6	5,921.3		491.7
Lakefield	209.7	223.8	206.1	17.7	
Lanark	64.7	71.8	79.0		7.2
Lancaster	33.6	43.8	36.0	7.8	
Lindsay	1,564.5	1,760.1	1,866.1		106.0
Madoc	153.6	152.1	146.6	5.5	
Marmora	85.8	84.7	94.2		9.5
Martintown	21.5	21.8	22.5		0.7
Maxville	80.4	85.2	73.4	11.8	
Millbrook	79.6	75.6	76.5		0.9
Napanee	935.2	978.7	953.2	25.5	

EASTERN ONTARIO SYSTEM—LOADS OF MUNICIPALITIES—1932-1933-1934 —Continued

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Newburgh	42.6	45.6	39.5	6.1	
Newcastle	64.2	101.0	102.5		1.5
Norwood	116.3	96.1	102.0		5.9
Omemee	77.4	97.7	102.0		4.3
Orono	78.3	78.6	74.9	3.7	
Oshawa	6,494.6	6,722.5	8,859.2		2,136.7
Ottawa	25,758.6	26,208.0	26,954.1		746.1
Perth	1,038.9	1,135.4	1,139.4		4.0
Peterborough	6,011.4	6,407.7	6,095.3	312.4	
Picton	871.6	869.8	868.7	1.1	
Port Hope	1,081.9	1,149.1	1,178.6		29.5
Prescott	770.8	696.5	705.8		9.3
Richmond	45.9	47.4	47.7		0.3
Russell	42.6	51.1	41.3	9.8	
Smiths Falls	1,509.3	1,468.4	1,549.6		81.2
Stirling	239.9	213.1	243.9		30.8
Trenton	2,745.4	2,911.1	2,948.5		37.4
Tweed	169.2	145.9	165.8		19.9
Warkworth	67.7	73.4	64.9	8.5	
Wellington	191.7	167.5	199.7		32.2
Westport	65.1	69.4	68.3	1.1	
Whitby	1,009.4	987.9	994.6		6.7
Williamsburg	142.1	198.4	212.4		14.0
Winchester	235.7	231.5	213.2	18.3	

EASTERN ONTARIO SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934

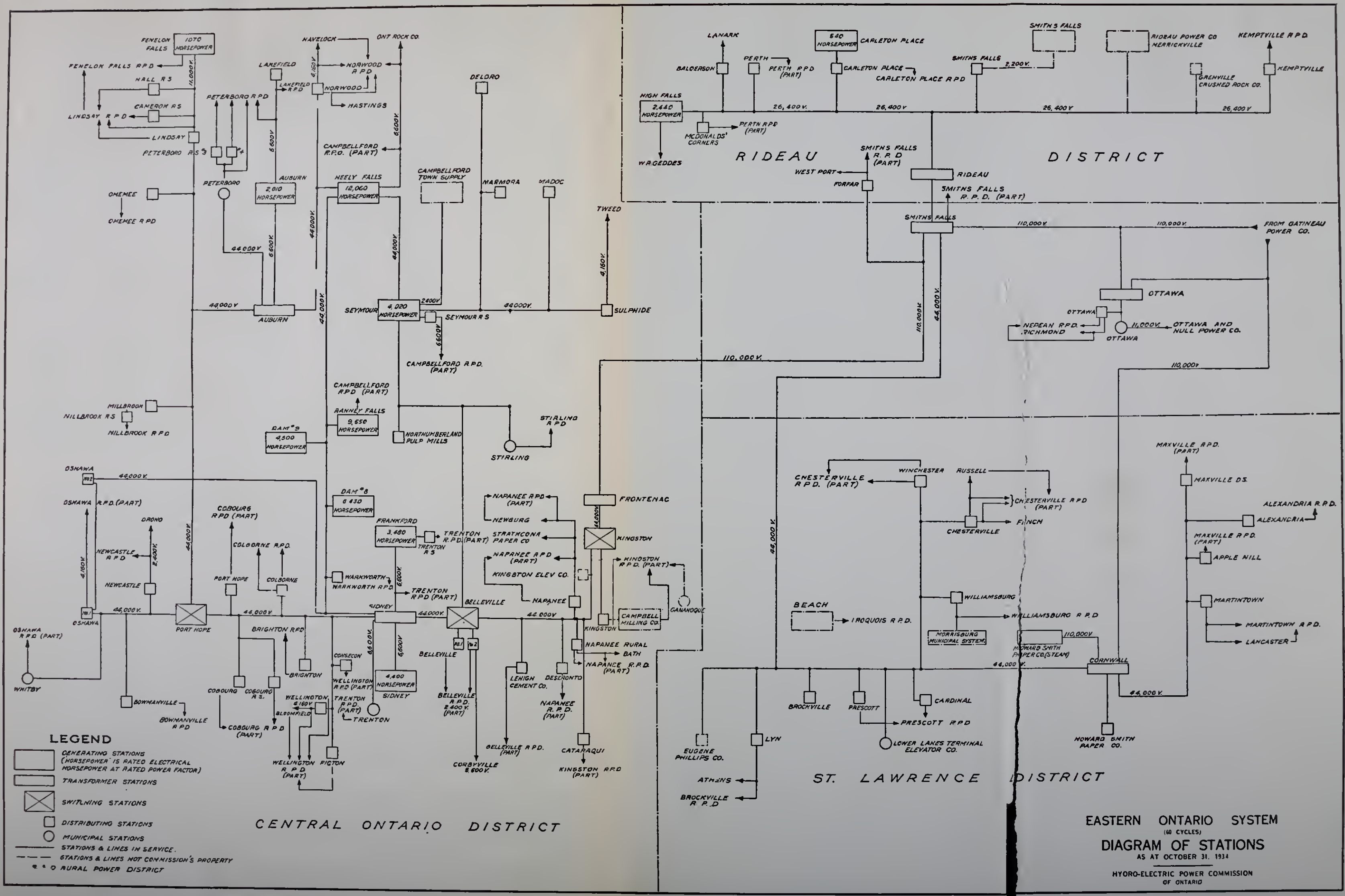
Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Alexandria	30.4	31.5	31.0	0.5	
Belleville	304.0	324.8	310.8	14.0	
Bowmanville	97.3	106.4	102.7	3.7	
Brighton	22.8	22.8	22.8		
Brockville	288.1	298.2	278.1	20.1	
Campbellford	67.3	69.5	65.6	3.9	
Chesterville	186.2	184.3	170.1	14.2	
Cobourg	242.9	270.7	279.1		8.4
Colborne	94.2	120.0	97.8	22.2	
Fenelon Falls	47.2	52.5	48.9	3.6	
Iroquois	445.0	428.1	408.8	19.3	
Kemptville	18.1	19.3	20.7		1.4
Kingston	296.2	323.7	324.9		1.2
Lakefield	32.7	34.3	39.6		5.3
Lindsay	10.0	16.4	16.4		



FENELON FALLS
1070 HORSEPOWER
FENELON FALLS R P D
11,000 V.
HALL R S
CAMERON R S
LINDSAY R P D
LINDSAY
PETERBORO R S 3
PETER
PETERB
ART)
OMEMEE
OMEMEE R P D
44,00
MILLBROOK
MILLBROOK R.S.
MILLBROOK R P D
OSHAWA
No.2
44,000 V.
OSHAWA R.P.D. (PART)
ORONO
4160 V.
NEWCASTLE R P D
2,400 V.
NEWCASTLE
44,000 V.
No.1
OSHAWA
44,000 V.
PORT HOPE
OSHAWA R P D (PART)
WHITBY
BOWMANVILLE
BOWMANVILLE R P D
SMITHS FALLS
2,200 V.
RIDEAU POWER CO. MERRICKVILLE
KEMPTVILLE R.P.D.
KEMPTVILLE
GRENVILLE CRUSHED ROCK CO.
26,400 V
26,400 V
DISTRICT
110,000 V.
110,000 V.
FROM GATINEAU POWER CO.
OTTAWA
OTTAWA
NEPEAN R.P.D.
RICHMOND
11,000 V.
OTTAWA AND HULL POWER CO.
OTTAWA
110,000 V
MAXVILLE R.P.D. (PART)
MAXVILLE D.S.
CHESTERVILLE R P D (PART)
CO
R P
FINCH
ALEXANDRIA R.P.D.
ALEXANDRIA
MAXVILLE R P D (PART)
APPLE HILL
POR
RG
MARTINTOWN
WILLIAMSBURG R. P. D
MARTINTOWN R.P.D.
110,000 V
HOWARD SMITH PAPER CO. (STEAM)
LANCASTER
CORNWALL
000 V.
44,000 V.
COBO
HOWARD SMITH PAPER CO.
DISTRICT
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
SWITCHING STATIONS
DISTRIBUTING STATIONS
MUNICIPAL STATIONS
STATIONS & LINES IN SERVICE.
STATIONS & LINES NOT COMMISSION'S PROPER
R. P. D. RURAL POWER DISTRICT

EASTERN ONTARIO SYSTEM
(60 CYCLES)
DIAGRAM OF STATIONS
AS AT OCTOBER 31, 1934

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO



FENELON FALLS
1070 HORSEPOWER
FENELON FALLS R.P.D.
11,000 V.
HALL R.S.
CAMERON R.S.
LINDSAY R.P.D.
LINDSAY
PETERBORO R.P.D.
PETERBORO R.S. 3
4
PETERBORO
OMEMEE
OMEMEE R.P.D.
LAKEFIELD
LAKEFIELD R.P.D.
HAVELOCK
ONT. ROCK CO.
NORWOOD R.P.D.
NORWOOD
HASTINGS
4,160 V.
6600 V.
CAMPBELLFORD R.P.D. (PART)
AUBURN
2,010 HORSEPOWER
HEELY FALLS
12,060 HORSEPOWER
44,000 V.
CAMPBELLFORD TOWN SUPPLY
DELORO
MARMORA
MADOC
TWEED
SULPHIDE
SEYMOUR
4,020 HORSEPOWER
2400 V.
SEYMOUR R.S.
CAMPBELLFORD R.P.D. (PART)
RANNEY FALLS
9,650 HORSEPOWER
DAM No. 9
4,500 HORSEPOWER
NORTHUMBERLAND PULP MILLS
STIRLING
STIRLING R.P.D.
MILLBROOK
MILLBROOK R.S.
MILLBROOK R.P.D.
OSHAWA
OSHAWA R.P.D. (PART)
ORONO
NEWCASTLE R.P.D.
NEWCASTLE
2,400 V.
COBOURG R.P.D. (PART)
COLBORNE R.P.D.
PORT HOPE
COLBORNE
DAM No. 8
6,430 HORSEPOWER
FRANKFORD
3,480 HORSEPOWER
TRENTON R.P.D. (PART)
TRENTON R.S.
WARKWORTH
WARKWORTH R.P.D.
SIDNEY
BELLEVILLE
No. 1
No. 2
BRIGHTON R.P.D.
BRIGHTON
CONSECON
WELLINGTON R.P.D. (PART)
4,400 HORSEPOWER
WELLINGTON
BLOOMFIELD
TRENTON
COBOURG
COBOURG R.S.
COBOURG R.P.D. (PART)
WELLINGTON R.P.D. (PART)
PICTON
BELLEVILLE R.P.D. 2,400 V. (PART)
CORBYVILLE 6,600 V.
BELLEVILLE R.P.D. (PART)
WHITBY
OSHAWA R.P.D. (PART)
BOWMANVILLE
BOWMANVILLE R.P.D.
NAPANEE R.P.D. (PART)
NEWBURG
STRATHCONA PAPER CO.
KINGSTON ELEV. CO.
NAPANEE
FRONTENAC
KINGSTON
KINGSTON R.P.D. (PART)
GANANOQUE
CAMPBELL MILLING CO.
NAPANEE RURAL
BATH
NAPANEE R.P.D. (PART)
LEHIGH CEMENT CO.
DESERONTO
CATARAQUI
KINGSTON R.P.D. (PART)
110,000 V.
LANARK
BALDERSON
PERTH
PERTH R.P.D. (PART)
640 HORSEPOWER
CARLETON PLACE
CARLETON PLACE R.P.D.
SMITHS FALLS
2,200 V.
RIDEAU POWER CO. MERRICKVILLE
KEMPTVILLE R.P.D.
KEMPTVILLE
GRENVILLE CRUSHED ROCK CO.
HIGH FALLS
2,440 HORSEPOWER
26,400 V.
McDONALDS' CORNERS
W. R. GEDDES
RIDEAU DISTRICT
WEST PORT
FORFAR
SMITHS FALLS R.P.D. (PART)
RIDEAU
FROM GATINEAU POWER CO.
OTTAWA
NEPEAN R.P.D.
RICHMOND
OTTAWA AND HULL POWER CO.
MAXVILLE R.P.D. (PART)
MAXVILLE D.S.
CHESTERVILLE R.P.D. (PART)
WINCHESTER
RUSSELL
CHESTERVILLE
FINCH
ALEXANDRIA R.P.D.
ALEXANDRIA
APPLE HILL
BEACH
IROQUOIS R.P.D.
WILLIAMSBURG
WILLIAMSBURG R.P.D.
MORRISBURG MUNICIPAL SYSTEM
HOWARD SMITH PAPER CO. (STEAM)
CORNWALL
MARTINTOWN
MARTINTOWN R.P.D.
LANCASTER
BROCKVILLE
PRESCOTT
CARDINAL
PRESCOTT R.P.D.
LOWER LAKES TERMINAL ELEVATOR CO.
EUGENE PHILLIPS CO.
LYN
ATHENS
BROCKVILLE R.P.D.
HOWARD SMITH PAPER CO.
ST. LAWRENCE DISTRICT
CENTRAL ONTARIO DISTRICT
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
SWITCHING STATIONS
DISTRIBUTING STATIONS
MUNICIPAL STATIONS
STATIONS & LINES IN SERVICE.
STATIONS & LINES NOT COMMISSION'S PROPERTY
R.P.D. RURAL POWER DISTRICT

EASTERN ONTARIO SYSTEM
(60 CYCLES)

DIAGRAM OF STATIONS
AS AT OCTOBER 31, 1934

HYDRO-ELECTRIC POWER COMMISSION
OF ONTARIO

EASTERN ONTARIO SYSTEM—RURAL POWER DISTRICT LOADS, 1932-1933-1934 —Continued

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Martintown	53.4	47.4	51.8		4.4
Maxville	156.0	156.6	157.4		0.8
Millbrook	34.3	36.3	42.1		5.8
Napanee	177.2	213.9	211.1	2.8	
Nepean	624.3	590.6	582.3	8.3	
Newcastle	72.6	63.6	63.4	0.2	
Norwood	27.9	22.9	19.8	3.1	
Omemee	3.0	2.0	4.8		2.8
Oshawa	677.0	626.2	727.8		101.6
Perth	21.4	34.8	26.8	8.0	
Peterborough	420.4	391.1	438.8		47.7
Prescott	109.8	106.4	116.6		10.2
Stirling	48.1	46.2	50.5		4.3
Smiths Falls	151.8	183.7	156.1	27.6	
Trenton	127.5	204.7	209.3		4.6
Warkworth	3.0	3.0	3.0		
Wellington	194.6	176.5	173.8	2.7	
Williamsburg	52.8	73.3	82.8		9.5

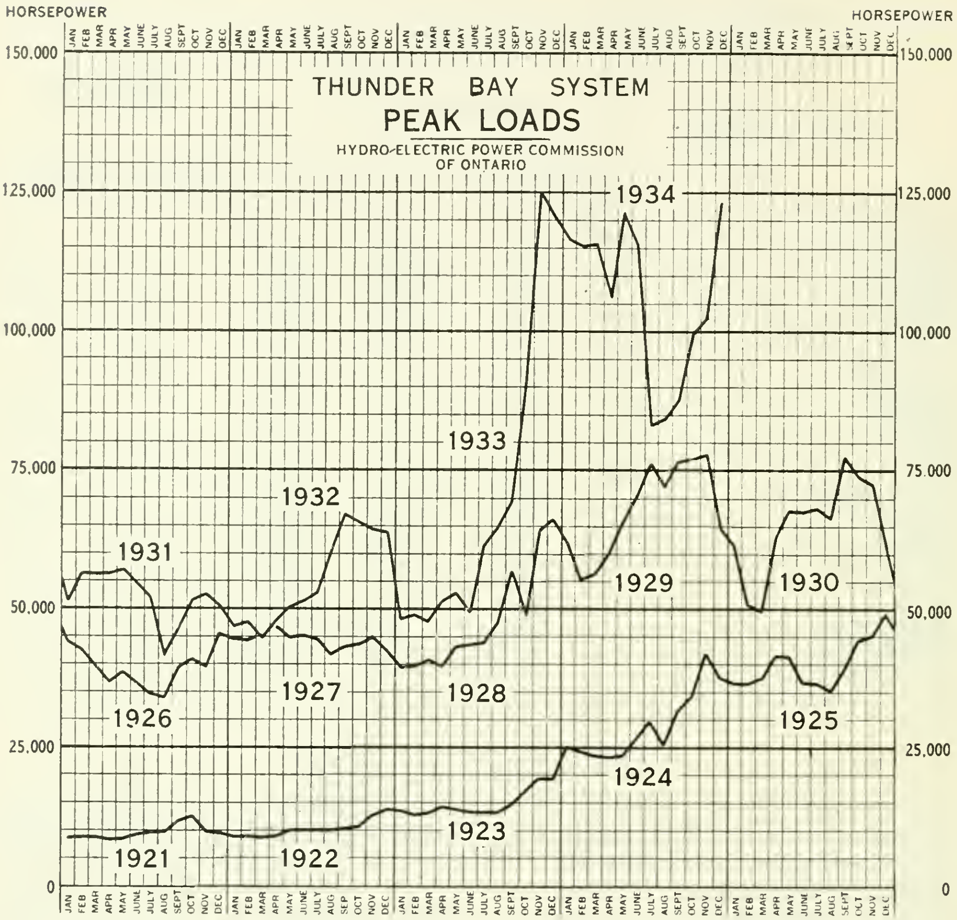
THUNDER BAY SYSTEM

The load on the Thunder Bay system increased over the previous year. A large amount of power was sold for the generation of process steam (utilized in the pulp and paper industry), with the result that the average monthly energy generated showed an increase of 69 per cent and the average monthly peak an increase of 81 per cent over 1933. Excluding this steam load, the average monthly energy generated was 1.35 per cent greater, but the average monthly peak was 1.9 per cent less than in 1933.

Two new loads were added to the system. On November 12, two 12,000-kw. electric steam generators and auxiliary equipment were placed in service at the Provincial Paper Mill in Port Arthur. Power is supplied to this steam station over a short section of 110,000-volt wood-pole line, which is an extension to the line from Port Arthur transformer station to the Thunder Bay Paper Company's Bare Point mill. On September 6, the Little Long Lac Gold Mines' substation, near Geraldton, was placed in service. Power is supplied to this station over its 33,000-volt transmission line, which is connected to the line of the Northern Empire Mines at Empire.

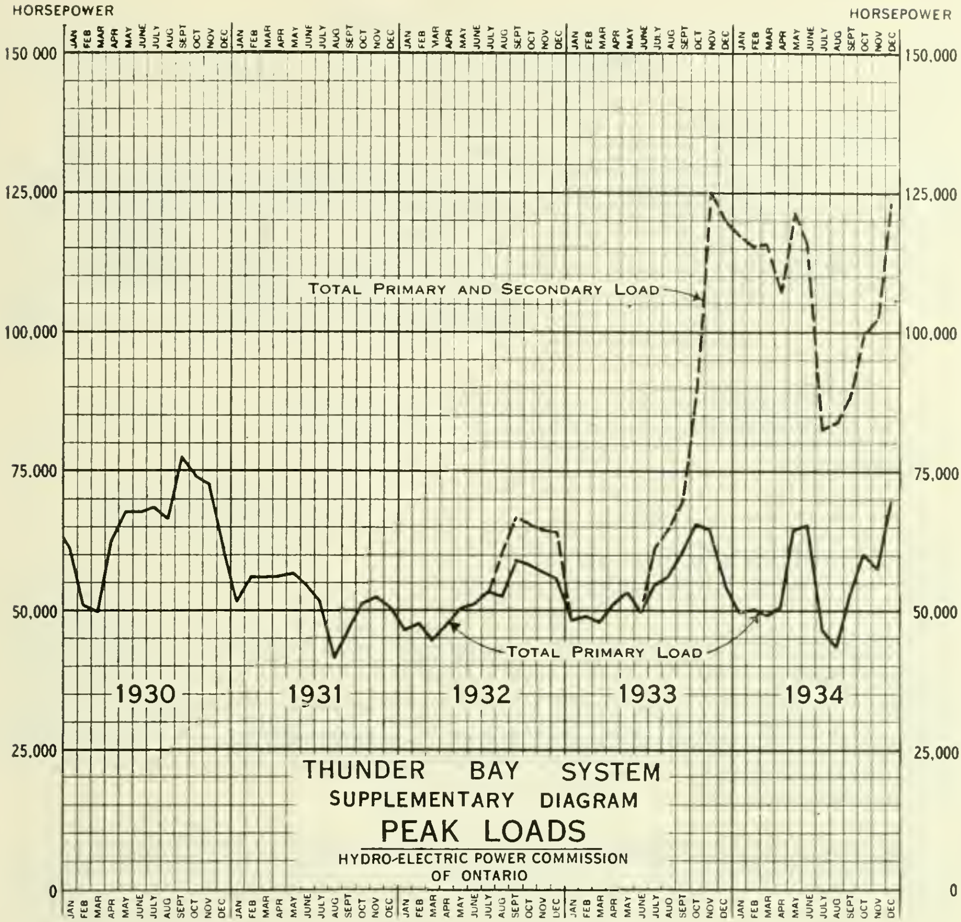
The Nipigon Corporation Pulp Mill at Nipigon, which has not been operated since June, 1927, resumed operations in September. The substation was maintained alive, however, throughout the year, as Nipigon township was supplied from this point.

Routine hydraulic maintenance work was carried on at Cameron Falls generating station. All power transformers at this station have operated satisfactorily, routine maintenance work only being required.



Alexander generating station gave satisfactory operating service, no major maintenance work being required on any equipment. This station is supervisory controlled from Cameron Falls generating station. While a few troubles have been experienced with this control equipment, on the whole it has operated satisfactorily. The automatic synchronizer, which is used in connection with this supervisory control, has given excellent service. Two new permanent magnet generators were installed, one on each of units 1 and 3. These are similar installations to that placed on No. 2 unit in 1932, and are used to supply energy to the governor flyball heads, replacing the pilot exciter source which was formerly used.

The transmission lines have caused little trouble. The 110,000-volt system experienced one total interruption for one minute on June 30, when, during an electrical storm, No. 2 and No. 3 lines tripped out at both ends and No. 1 line tripped out at Port Arthur. In addition to this the Great Lakes Paper Company suffered a short interruption due to a smokestack guy wire coming into contact with the line. Fort William experienced one five-minute interruption, due to a flashover caused by a large bird flying into the line. Flashovers during electrical storms were responsible for four short interruptions to Nipigon

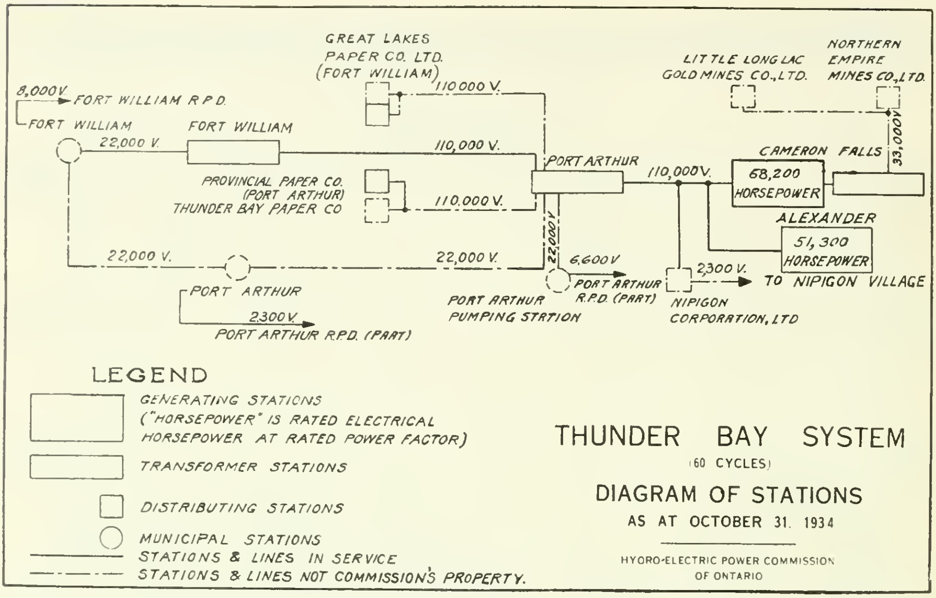


Corporation station. A 110,000-volt entrance bushing failure was responsible for a six-hour interruption to this station. The service to Northern Empire mines was interrupted on four occasions before the Little Long Lac Gold Mines station and line were placed in service. One of these interruptions was due to bushing failures in transformers at Cameron Falls generating station during an electrical storm, the others were due to trees falling into the line. After the Little Long Lac line was placed in service, ten interruptions, some of rather lengthy duration, were experienced due to trees falling into the line.

Special attention has been given to testing the line insulators and replacing those found faulty. The line conductors were closely inspected for broken or loose strands, and these repaired where necessary.

The Port Arthur transformer station has had no curtailment of service to any customers due to failures of equipment. The relay equipment which was installed in all the 110,000-volt lines at this station in 1933 has functioned satisfactorily.

The Fort William transformer station has had no failure of equipment or incorrect functioning of relays or breakers. Routine maintenance work only was required at this station.


GREAT LAKES PAPER CO. LTD. (FORT WILLIAM)
110,000 V.
8,000 V
FORT WILLIAM R.P.D.
FORT WILLIAM
FORT WILLIAM
22,000 V.
110,000 V.
PROVINCIAL PAPER CO. (PORT ARTHUR)
THUNDER BAY PAPER CO
110,000 V.
22,000 V.
22,000 V.
PORT ARTHUR
2,300 V.
PORT ARTHUR R.P.D. (PART)
PORT ARTHUR
22,000 V
6,600 V
PORT ARTHUR R.P.D. (PART)
PORT ARTHUR PUMPING STATION
110,000 V.
LITTLE LONG LAC GOLD MINES CO., LTD.
NORTHERN EMPIRE MINES CO., LTD.
33,000 V
CAMERON FALLS
68,200 HORSEPOWER
ALEXANDER
51,300 HORSEPOWER
2,300 V.
TO NIPIGON VILLAGE
NIPIGON CORPORATION, LTD
LEGEND
GENERATING STATIONS ("HORSEPOWER" IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
DISTRIBUTING STATIONS
MUNICIPAL STATIONS
STATIONS & LINES IN SERVICE
STATIONS & LINES NOT COMMISSION'S PROPERTY.
HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

THUNDER BAY SYSTEM
(60 CYCLES)
DIAGRAM OF STATIONS
AS AT OCTOBER 31, 1934

Precipitation in the watershed supplying this system has been about average, slightly over 24 inches being recorded. Even with the heavy load on the system it has been found necessary to waste a considerable amount of water at both plants during the greater part of the year. Notwithstanding the high river flow, the elevation of lake Nipigon has been raised about 15 inches during the year.

THUNDER BAY SYSTEM—LOADS OF MUNICIPALITIES, 1932-1933-1934

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Fort William	10,916.7	10,932.0	10,835.8	96.2	
Nipigon Township	83.0	101.1	105.1		4.0
Port Arthur	35,195.1	33,205.5	26,251.5	6,954.0	

THUNDER BAY SYSTEM—LOADS OF RURAL POWER DISTRICTS

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Fort William	35.0	80.0	83.7		3.7
Port Arthur	23.7	33.2	37.5		4.3

MANITOULIN DISTRICT

Supplying Power to the

MANITOULIN RURAL POWER DISTRICT

Operation of the Manitoulin district was satisfactory throughout the year. Three interruptions totalling four hours, thirty-three minutes, were required by the Manitoulin Pulp Co. to permit it to make repairs to equipment from which power for the district is supplied. In addition to these there were several short service interruptions due to lightning disturbances. There were no maintenance items of importance during the year.

MANITOULIN RURAL POWER DISTRICT LOADS, 1932-1933-1934

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
Manitoulin	....	79.9	87.9	....	8.0

NORTHERN ONTARIO PROPERTIES

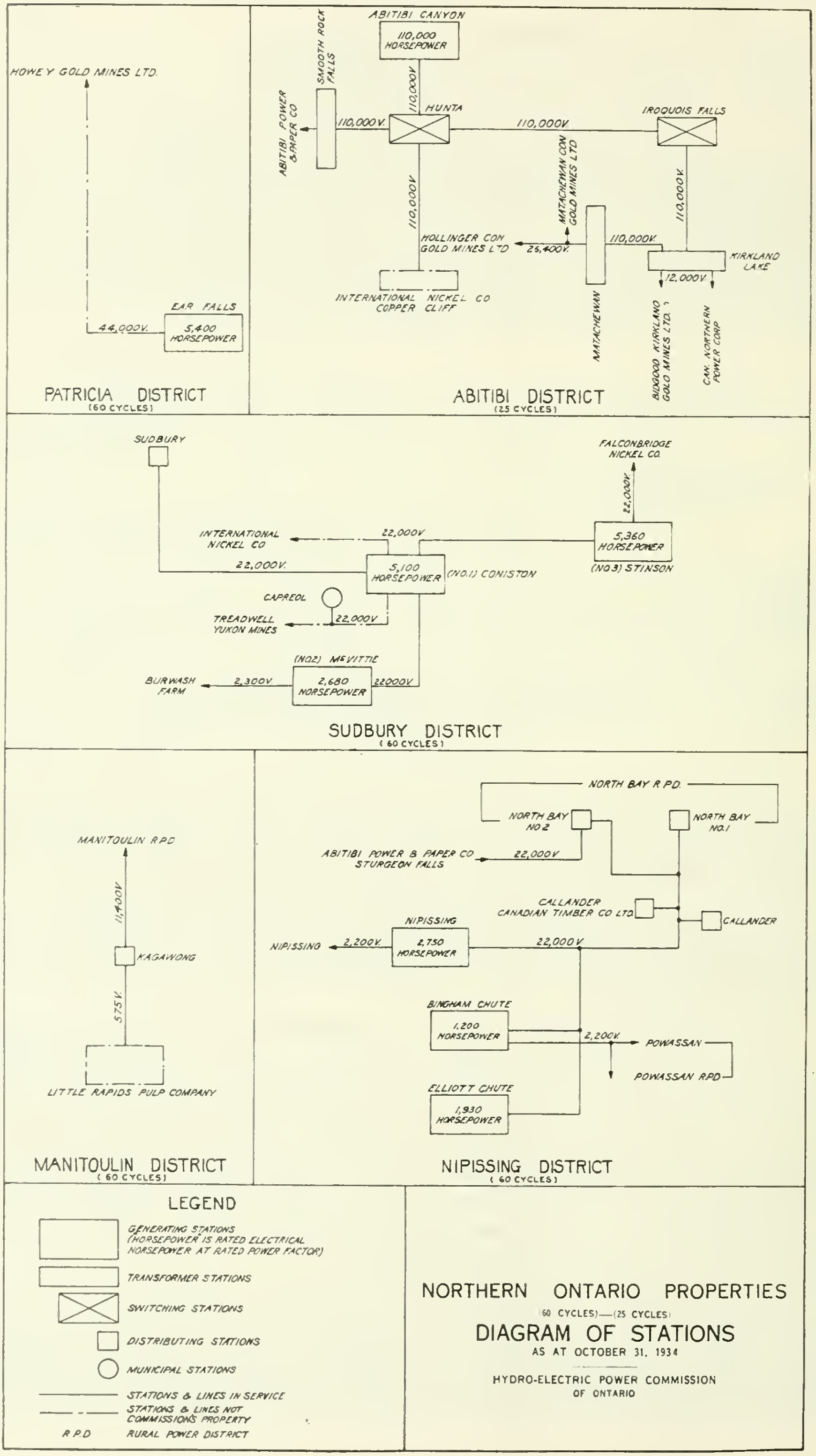
Nipissing District

The Nipissing district load trend, as indicated by a comparison of monthly generated peaks and average loads for the current year with the loads for the corresponding months of the previous year, is somewhat erratic, the loads for the different months of the current year being higher in some cases and lower in other cases than for the corresponding months of last year. The general trend, however, is slightly upward as indicated by the fact that the total kilowatt-hours generated during the current year exceeds last year's total by 2.7 per cent.

Water storage conditions have been satisfactory throughout the year.

Following a programme, initiated in 1928, for the renewal of all timber storage dams over a period of eight years, considerable work was done on the Sausage lake and Clear lake dams. At Sausage lake a reinforcing rock-filled timber crib, 67 feet in length with an 8-foot sluiceway in the centre, was constructed on the downstream side of the present dam. At Clear lake dam, 63 feet of bridge section was replaced by a gravel-filled timber crib, which was equivalent to the construction of a reinforcing dam immediately downstream from this section of the existing dam.

Renewal of defective materials in the various line sections included seven poles, three crossarms and eighteen insulator pins on the Callander junction to North Bay section, 31 poles on the Bingham Chute junction to Callander section, 128 insulators and 34 insulator pins on the Nipissing generating station to Bingham Chute junction section, and 102 insulators and two insulator pins


HOWEY GOLD MINES LTD.
44,000V.
EAR FALLS
5,400 HORSEPOWER
PATRICIA DISTRICT
(60 CYCLES)
ABITIBI CANYON
110,000 HORSEPOWER
SMOOTH ROCK FALLS
ABITIBI POWER & PAPER CO
110,000V.
110,000V
HUNTA
110,000V
IROQUOIS FALLS
MATACHEWAN CON GOLD MINES LTD
110,000V
110,000V.
HOLLINGER CON GOLD MINES LTD
25,400V.
110,000V.
KIRKLAND LAKE
12,000V
INTERNATIONAL NICKEL CO COPPER CLIFF
MATACHEWAN
BIDGOOD KIRKLAND GOLD MINES LTD.
CAN. NORTHERN POWER CORP
ABITIBI DISTRICT
(25 CYCLES)
SUDBURY
FALCONBRIDGE NICKEL CO.
22,000V.
INTERNATIONAL NICKEL CO
22,000V
22,000V.
5,100 HORSEPOWER
(NO.1) CONISTON
5,360 HORSEPOWER
(NO.3) STINSON
CAPREOL
TREADWELL YUKON MINES
22,000V
(NO.2) McVITTIE
BURWASH FARM
2,300V
2,680 HORSEPOWER
22,000V
SUDBURY DISTRICT
(60 CYCLES)
MANITOULIN R.P.D.
11,400V
KAGAWONG
575V.
LITTLE RAPIDS PULP COMPANY
MANITOULIN DISTRICT
(60 CYCLES)
NORTH BAY R.P.D.
NORTH BAY NO.2
NORTH BAY NO.1
ABITIBI POWER & PAPER CO STURGEON FALLS
22,000V
CALLANDER CANADIAN TIMBER CO LTD.
CALLANDER
NIPISSING
NIPISSING
2,200V.
2,750 HORSEPOWER
22,000V
BINGHAM CHUTE
1,200 HORSEPOWER
2,200V.
POWASSAN
POWASSAN R.P.D.
ELLIOTT CHUTE
1,930 HORSEPOWER
NIPISSING DISTRICT
(60 CYCLES)
LEGEND
GENERATING STATIONS (HORSEPOWER IS RATED ELECTRICAL HORSEPOWER AT RATED POWER FACTOR)
TRANSFORMER STATIONS
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R.P.D. RURAL POWER DISTRICT

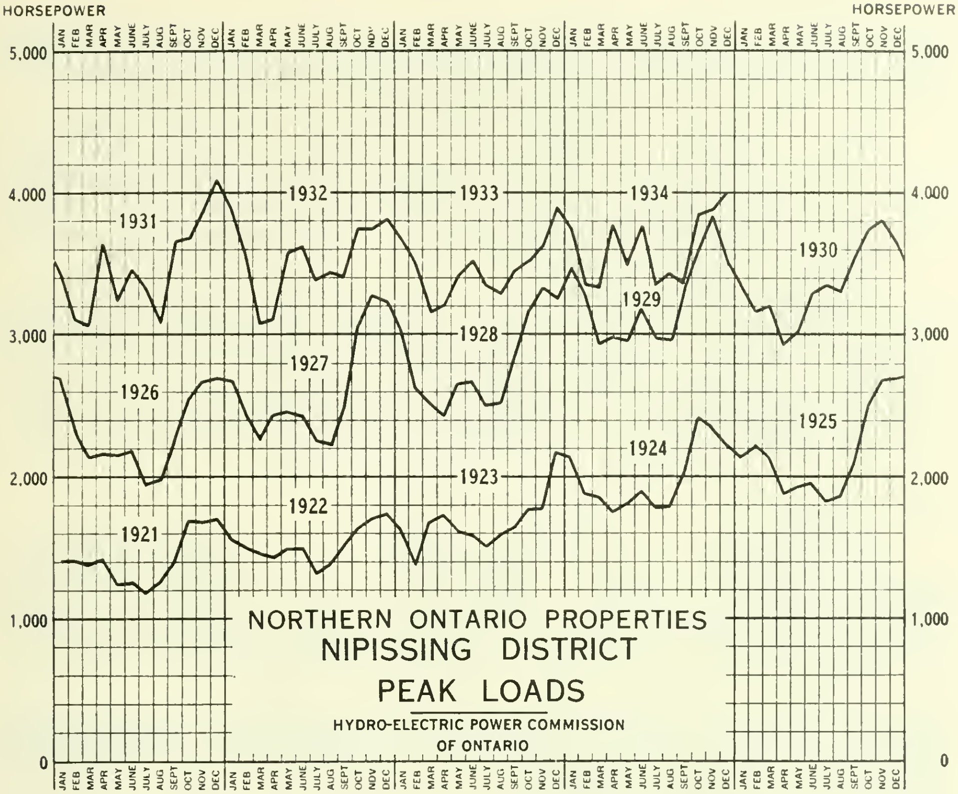
NORTHERN ONTARIO PROPERTIES

(60 CYCLES)—(25 CYCLES)

DIAGRAM OF STATIONS

AS AT OCTOBER 31, 1934

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO



on the Elliott Chute junction to Bingham Chute Junction section. A total of 6.05 miles of old No. 9 iron telephone conductor was replaced with No. 6 a.c.s.r. An investigation into the destruction of wood poles by ants, which appears to be more serious in this district than elsewhere, was made. Remedial measures are being taken.

Generating Stations

At Nipissing generating station, No. 1 turbine and its governor pump were overhauled. Adjustments to No. 2 turbine were made pending complete overhauling. One armature coil in No. 2 generator was replaced.

The timber deck of the pipe-line headblock was replaced with a rock and gravel fill. The timber deck on the wing dam was replaced with a new deck, the old timber supports being replaced by steel beams.

A number of leaks in the wood-stave pipe line were stopped by installing tarred felt paper held in place by pre-formed steel plates inserted under the pipe-line bands. Three defective bench sills supporting the pipe line were replaced. The under side of the roadway bridge over the wood-stave pipe line was sheathed with galvanized iron to prevent the collection of dirt on the pipe line.

Obsolete choke coils on the outgoing 22,000-volt line were removed. One 22,000-volt oil circuit-breaker bushing, which failed due to lightning, was replaced. The four-pole transformer structure supporting the outdoor service transformers was rebuilt using new materials throughout.

At Bingham Chute generating station the bronze cooling coils in two 300-kw. power transformers were replaced with new copper coils, and the oil, which tests showed to be too high in acid content, was replaced with new oil. One armature coil in No. 1 generator failed in service and was replaced.

Extensive repairs to Bingham Chute dam were undertaken. A concrete core wall was constructed in the earth-fill section, a section of the concrete gravity wall which broke away under severe winter stresses was replaced, and the east wing wall was reinforced with a rock fill. Additional bracing was installed to support the headblock deck.

At Elliott Chute generating station a frost protection housing with electric heating facilities was installed on the downstream side of that section of the headblock in which is located the riser from the pipe line to the deck. An additional 28 cubic yards of riprap were laid on the upstream face of the earth-fill dam to prevent erosion at the water line, and an additional twenty cubic yards of gravel were spread on top of the earth-fill dam.

Transformer and Distributing Stations

At North Bay No. 1 substation extensive changes, including the installation of an additional 750-kv-a. power transformer, the replacement of the obsolete 22,000-volt lightning arrester with a modern arrester, and various alterations and additions to the low-tension switching equipment were made, and the new equipment was placed in operation on September 30.

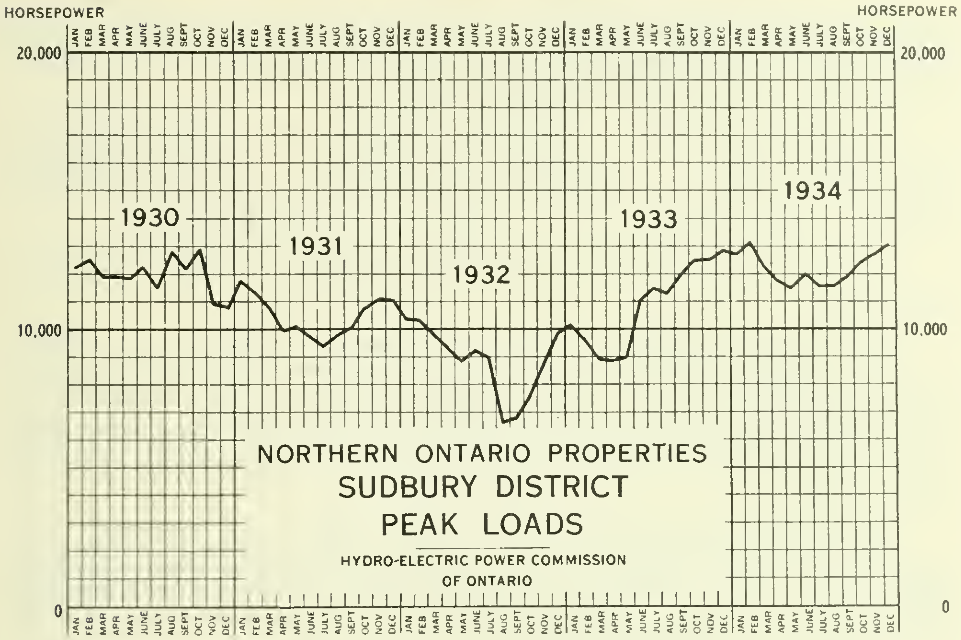
At Callander substation three 22,000-volt fuse holders, which were found on test to be causing radio interference, were replaced with a better type of holder. The obsolete telephone protective equipment at this station was replaced with up-to-date equipment.

At the Canadian Timber Company substation in Callander a bank of bucking transformers was installed to reduce the low-tension voltage on the customer's supply. One power-transformer high-tension bushing at this station failed in service, and was returned to the manufacturer for repairs and improvements. All other high-tension transformer bushings at this station were also returned to the manufacturer for improvement.

Sudbury District

The highest generated peak load on record for the Sudbury district occurred on February 12, 1934. For the first ten months of the current year the generated peak and average loads exceeded the peak and average loads for the corresponding months of the previous year. During September the peak load was down one per cent and the average load down three per cent with respect to the loads of September, 1933, but this was apparently due to curtailment of load over a four-day period by one of the larger customers while repairs to their plant were in progress. The October peak load was the same as the peak for the previous October, but the average load increased 7.7 per cent.

As stated in the last Report the Wanapitei lake level was lowered about four feet below normal during the summer months of 1933, to oblige the operators of certain mining properties. Owing to sub-normal precipitation, additional storage for power generation during the fall and early winter was



not regained before the freeze-up. This, combined with an increase in flow requirements to meet district load increases, resulted in a complete depletion of usable storage by the time relief was obtained from the spring run-off. In order to draw the water from the lake at the low levels which existed in late February, March and early April, it was necessary to blast out gravel and boulders which restricted the stream flow a short distance upstream from the Wanapitei lake storage dam. The water storage situation at the end of the present fiscal year is satisfactory.

On the sixteen-mile tie line between McVittie and Coniston generating stations, all brush was cleared from the right-of-way, twenty-one defective poles were replaced, fifty-one poles were stubbed, the remaining poles were straightened where necessary, and all poles were butt treated with solignum.

Blasting by road gangs in the vicinity of the tie line between Stinson and Coniston generating stations was the cause of several cases of damage to insulators, conductors, and poles. All poles on this section were butt treated with solignum and the right-of-way was cleared of brush. A few defective insulators were replaced on the line between Coniston generating station and Sudbury.

At Coniston generating station the outside surfaces of the three steel penstocks were cleaned and protective coatings of red lead were applied where required. An investigation into the cause of leakage through the timber dam was made, following which the upstream side of the dam was resheathed with two-inch ship lap, a new timber crib and clay puddle section was built at the end opposite the headrace, new flooring was laid in all sluiceways, and the corners of two piers were reinforced. As a result of this work leakage through the dam, which had reached serious proportions, was reduced to a negligible amount.

No. 3 turbine was completely overhauled. Forty new gate-link bolts and seven new gate-link pins were made and installed, and cracks in four buckets of the downstream runner were rewelded. No. 1 and No. 2 turbines were found to require only minor adjustments.

At McVittie generating station new filler gate stems were installed on both headgates and a new filler gate was installed in the No. 2 headgate. Protective housings were erected around the vent pipes of No. 1 and No. 2 penstocks and electric heaters were installed inside these housings.

No. 1 and No. 2 turbines were inspected and found to require only minor adjustments.

The lead-covered cable between No. 1 generator and the low-tension switching equipment failed in service and has been temporarily replaced, pending delivery of a new cable. Insulation tests show that failure of the corresponding cable between No. 2 generator and the low-tension switching equipment may be anticipated at any time and it is the intention to replace this cable also.

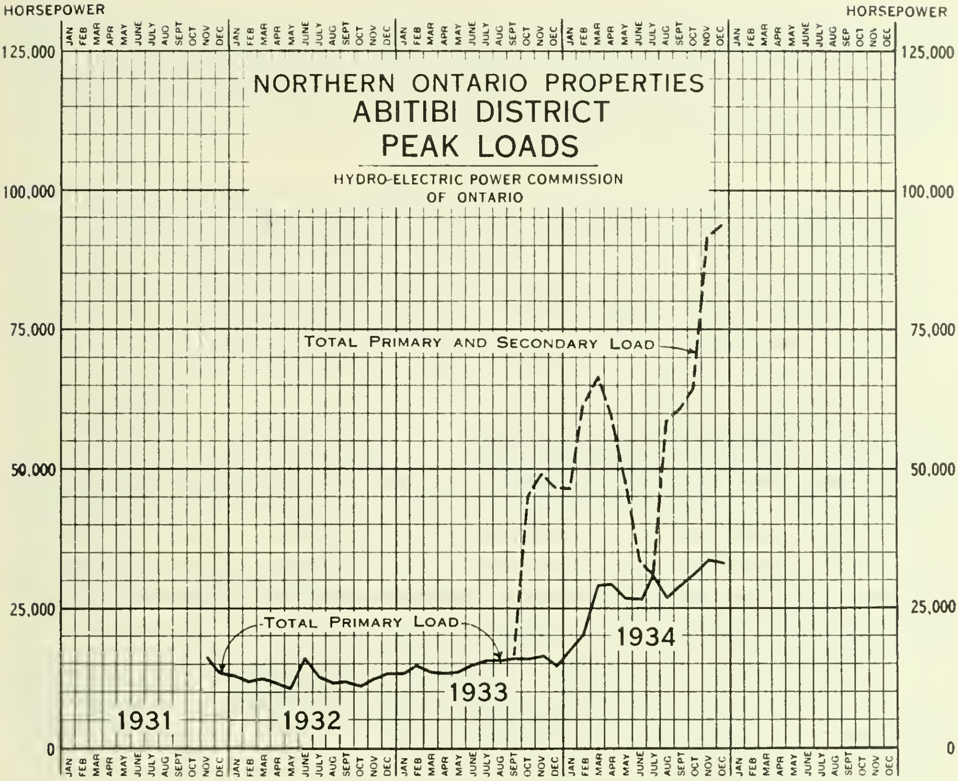
At Stinson generating station the exciter turbine was completely overhauled. Six new gate bolts were made and installed, the upstream end of the turbine shaft was re-threaded and a new runner locking nut was installed. No. 1 and No. 2 turbines were inspected and found in good condition, only minor adjustments being required.

At Sudbury transformer station an additional 1,000-kv-a., 23,500/2,400-volt transformer has been supplied for use in case of failure of one of the three units feeding the city load. One 2,200-volt oil circuit-breaker on the feeder serving the city motor load was damaged beyond repair by lightning on May 21. This breaker was replaced by a similar unit.

Abitibi District

The extent of growth in the Abitibi district is indicated by the fact that the average of the monthly generated peaks for the fiscal year 1934, is approximately 312 per cent of the average of the monthly generated peaks for the fiscal year 1933. A comparison of total energy generated in the two years shows an even greater increase. This growth is due partly to the supply of secondary power for steam generation and partly to the acquisition of new primary load, the latter being in October, 1934, approximately 100 per cent greater than in October, 1933.

The year 1933-34 was the first complete year's operation of the Abitibi Canyon generating station. The second unit, which had been available for service intermittently since the latter part of August, was officially released for continuous operation on December 7, 1933. In general, the performance of all equipment was very satisfactory, and no major maintenance or repair work was required. There were, of course, the usual number of minor adjustments, changes and additions to equipment, which may be anticipated in a new station of this size. Despite an unusually severe winter, ice troubles were chiefly confined to the collection of frozen spray on the waste gate operating mechanisms which interfered with gate operation. This was remedied by



constructing tarpaulin shields around the apparatus affected. Routine inspections of equipment according to schedule were carried out throughout the year. The spring freshet, which at its peak involved the passage of 70,000 c.f.s. through the waste channel, was handled satisfactorily.

One 3-phase, 1,500-kv-a. service transformer, which was supplied to supplement the 450-kv-a. service unit originally installed, was placed in service on January 3. A second 1,500-kv-a. service transformer, which was installed in an outdoor substation to serve the operators' colony, was placed in service on February 11.

Connections between the third 132,000-volt power circuit from Abitibi Canyon to Hunta, and the high-tension bus at Canyon were completed and placed in service on January 31.

Of a total of thirty-four service interruptions to the International Nickel Company at Copper Cliff, twenty-nine were directly attributable to lightning disturbances over the 246 miles of 132,000-volt steel-tower line exposure between Abitibi Canyon and the customer's station, two were due to unknown causes, two were due to a bush fire which crossed the line in the vicinity of Westree, and the remaining one was due to reflection of trouble from another part of the district. Except for these unavoidable interruptions, the operation of the lines serving this customer was satisfactory, maintenance work being confined to the replacement of a small number of defective insulators, the majority of which were damaged by rifle shots, the clearing of brush from sections of the right-of-way, and the replacement of a short section of wood-pole telephone line which was damaged by a bush fire.

On January 31 one circuit of the second double-circuit 132,000-volt steel-tower line between Abitibi Canyon generating station and Hunta, one circuit of the double-circuit 132,000-volt steel-tower line between Hunta and Iroquois Falls and a new 56-mile, single circuit 132,000-volt wood-pole line between Iroquois Falls and Kirkland Lake, were placed in service, in order to make initial delivery of power to the Northern Canada Power Corporation at Kirkland Lake. In order to deliver this power on the contract date it had been necessary to construct the 56 miles of wood-pole line between Iroquois Falls and Kirkland under most adverse winter conditions. As a result of this, considerable difficulty was experienced in maintaining service during the spring months when the frost was coming out of the ground. Following the completion of adjustments necessitated by this condition, the operation of the lines serving Kirkland Lake was satisfactory, maintenance work being confined to the replacement of a few insulators which were broken by rifle shots, the replacement of one broken pole, and the straightening of three poles which were blown partially over by a very severe windstorm.

On April 30, a new 38-mile, 132,000-volt single-circuit wood-pole line between Kirkland Lake and Matachewan was placed in service in preparation for service to customers in the Matachewan area. The operation of this section of line was satisfactory.

On July 31, the 21-mile, double-circuit, steel-tower line between Hunta and Smooth Rock Falls was placed in service for initial delivery of power to the Abitibi Power and Paper Company mill at Smooth Rock Falls.

On September 8, 4.8 miles of 12,000-volt single-circuit, wood-pole line between Kirkland Lake and Bidgood Kirkland Gold Mines were placed in service.

At Kirkland Lake, initial delivery of power to the Canada Northern Power Corporation was required before the Commission's transformer station was completed. To accomplish delivery to the customer's low-tension bus, power from the Commission's high-tension line was stepped down through a bank of three 3,000-kv-a., 110,000/11,000-volt transformers, which were loaned to the Commission by the customer. One of these units failed in service while on loan and the minor repairs required were made at the expense of the Commission.

The Commission's Kirkland Lake transformer station was completed and placed in service on July 26. Power from the Commission's high-tension circuits is stepped down through a bank of three 9,500-kv-a. transformers to a low-tension voltage of approximately 12,000. This voltage is regulated to conform to the customer's low-tension voltage requirements by means of a three-phase, 15,000-kv-a. voltage regulator, of the tap changing underload type. Accessory equipment includes high-tension air-break switches, low-tension oil circuit-breakers, transformer cooling-water system, transformer oilfiltering equipment, etc. The station is of the outdoor, steel-structure type, and the site adjoins the site of the Canada Northern Power Corporation station. Under an operating agreement with the Canada Northern Power Corporation the Commission's station is operated in conjunction with the Corporation's station by the Corporation's staff and operation in this manner has been satisfactory.

At Matachewan a new station erected to serve mining customers in the Matachewan area was placed in service on April 30. Power from the Commission's high-tension line is stepped down through a bank of three 1,500-kv-a. transformers to approximately 26,000 volts at which voltage it is distributed to customer's transformer stations over short feeders. The station is of the outdoor, wood-pole type. Accessory equipment includes a high-tension air-break switch, low-tension oil circuit-breaker, high and low-tension co-ordinating spark gaps, etc.

On June 3, initial delivery of power to the Matachewan Consolidated Gold Mines Limited was made, and on July 10, initial delivery to the Hollinger Consolidated Gold Mines Limited, Young-Davidson property, was made from this station.

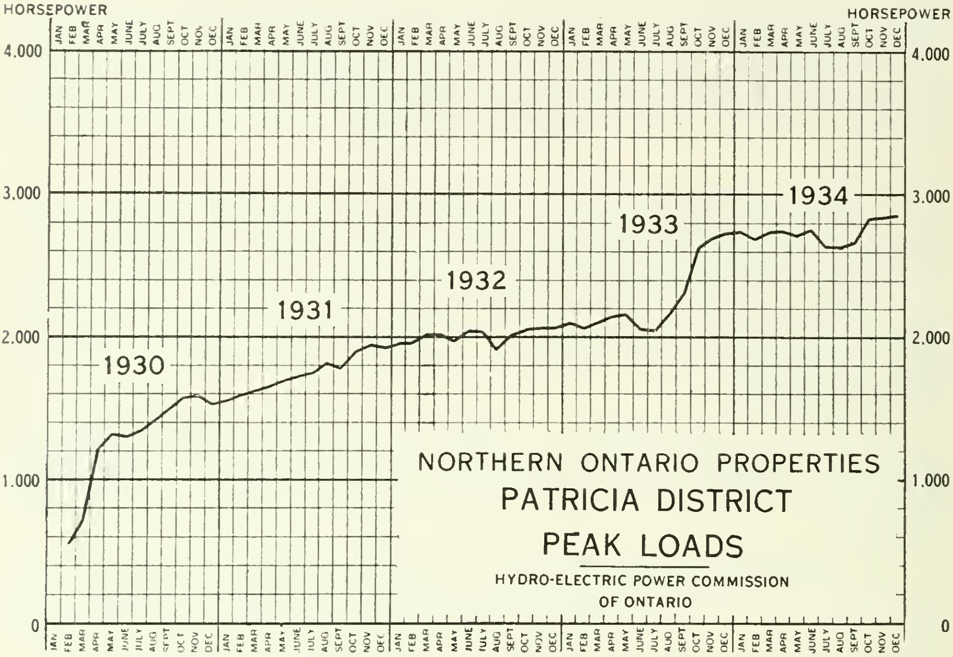
At Smooth Rock falls a new station was placed in service on July 31, 1934, to supply power for steam generation to the Abitibi Power and Paper Co. mill. Power from the Commission's high-tension circuits is stepped down through a bank of three 13,000-kv-a. transformers to approximately 6,600-volts, at which voltage it is supplied to two 25,000-kv-a. steam generators. The transformers and high-tension equipment are installed in an outdoor type, steel-structure station. The low-tension buses and equipment are housed, and the steam generators are installed in the mill building. Accessory equipment includes high-tension disconnecting switches, low-tension oil breakers, steam generator circulating pumps, etc. This station is operated for the Commission by the customer's staff.

On September 8, initial delivery of power to Bidgood Kirkland Gold Mines Limited from the Kirkland Lake station was made. This involved placing in service at Kirkland Lake station a low-tension oil circuit-breaker, and a set of low-tension disconnecting switches through which power from the low-tension bus is supplied to the low-tension line feeding the customer's station.

On June 3, the temporary supply of power for steam generation to Abitibi Power and Paper Company at Iroquois Falls was discontinued at the customer's request. Delivery of this power commenced October 23, 1933.

At Hunta the installation of line disconnecting switches on all incoming and outgoing lines, and installation of a transfer bus with disconnecting switches between the bus and various lines, is in progress. Those switches associated with the two easterly incoming and outgoing circuits were completed and placed in service on October 21. On the same date two sets of disconnecting switches which had been installed at Iroquois Falls in the two circuits between Hunta and Iroquois Falls, were placed in service.

As practically all equipment in the district is comparatively new, maintenance work has been at a minimum, no failures of any major equipment having been experienced to date. Routine inspections of all equipment, and repairs or adjustments where required, have been made.



Patricia District

The generating and transformer station at Ear Falls on the English river has been in satisfactory operation throughout the year. All equipment has functioned as required, there being no failures of major importance. The system load has shown an increase over that existing during the previous year. The average monthly energy generated was about 30 per cent greater and the average monthly peak approximately 26 per cent higher during 1934 than in 1933.

Excellent service has been obtained from the 44,000-volt transmission line and equipment, there being no interruptions due to trouble during the year. An interruption was arranged with the Howey Gold Mines Limited on November 29, in order to install a temporary rheostat in the generator field circuit and to improve the governor operation at Ear Falls generating station. During the period May 24 to 28, three short interruptions were arranged in order to allow the installation of an automatic generator voltage regulator equipment and pilot exciter.

This voltage regulator equipment was installed in an attempt to reduce the wide swings in voltage which had been present since the Howey Gold Mines placed its new hoist in service late in October. This regulator equipment is operating satisfactorily and favourable results have been obtained.

A certain amount of maintenance work has been carried out on the major equipment during the pre-arranged plant shut-downs. The turbine operating mechanism, governor system, and auxiliary mechanical equipment have been inspected and overhauled where needed.

The 44,000-volt transmission line between the generating station and the Howey Gold mines, which is owned by the Howey Gold Mines, Limited, has been operated and maintained for this company throughout the year under the same arrangement for costs as previously. The transmission circuit has functioned satisfactorily during the year.

The flow in the English river has been adjusted from time to time, as required by the Lake-of-the-Woods Control Board, by means of the regulating dam at Ear Falls.

The precipitation in the vicinity of Ear Falls has been slightly above normal, being 26 inches during the year. Owing to the heavy snowfall the run-off occurred very quickly and the level of lac Seul rose very rapidly, notwithstanding the fact that exceptionally large river flows were permitted. Heavy inflows to the lower English river also contributed to high tailwater at the plant. While the level of lac Seul had been regulated during the previous years to 1,161.5, it rose as high as 1,166.95 this year. This has been materially reduced, being 1,164.0 on October 31, 1934, as compared with 1,160.8 on October 31, 1933.

NORTHERN ONTARIO PROPERTIES—LOADS OF MUNICIPALITIES, 1932-1933-1934

Municipality	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
NIPISSING DISTRICT					
Callander	175.0	196.4	198.5	....	2.1
Nipissing	3.0	3.0	3.0	....	....
North Bay	2,915.0	2,911.4	3,087.1	....	175.7
Powassan	131.0	106.5	103.0	3.0	....
SUDBURY DISTRICT					
Sudbury	3,667.5	3,599.2	3,807.0	....	207.8

NORTHERN ONTARIO PROPERTIES—LOADS OF RURAL POWER DISTRICTS, 1932-1933-1934

Rural power district	Peak load in horsepower			Change in load 1933-1934	
	Oct. 1932	Oct. 1933	Oct. 1934	Decrease	Increase
NIPISSING RURAL POWER DISTRICT					
North Bay	77.0	77.9	100.5	....	22.6
Powassan	2.0	3.0	3.0	....	....

SECTION III

MUNICIPAL WORK

The Commission acts in an advisory capacity to the municipalities with which it has contracts. In this connection the Commission assists the municipal officials to make arrangements for the purchase, construction or extension of distribution systems. As provided under *The Power Commission Act* all rate adjustments are approved by the Commission. A study of the operating conditions of all utilities is therefore made annually and adjustments recommended. The Commission exercises a general supervision over the management and operation of all systems more especially in smaller municipalities which, individually, are not of sufficient size to employ a manager with the technical knowledge necessary to administer all phases of the local system's operation.

In the case of the rural power districts, the Commission—on behalf of the corporations of the individual townships—operates the rural power systems, and distributes electrical energy to the customers of the respective corporations in any such rural power district.

NIAGARA SYSTEM

On July 1, 1934, a second block of power, amounting to 20,000 horsepower, was taken from the MacLaren-Quebec Power Company, and on October 1, 1934 a third block of power, amounting to 54,000 horsepower, was taken from the Beauharnois Light, Heat and Power Company. This power is transmitted over the 220,000-volt line from Beaudet to Chats Falls.

The load on the Niagara system during the fiscal year 1934 shows a substantial increase in the total amount of power taken by the municipalities and industrial companies, in each month of the year, excepting November 1933, as compared with the corresponding months of the previous year. The figures used in this comparison do not include secondary power sold for process steam generation and for export to the United States. During the year a substantial increase was shown in the sale of secondary power. The loads on the systems of the Commission are referred to more fully in Section II of this Report.

"Secondary" Power

"Secondary" power is the term applied to power which is sold subject to unlimited interruptions, to reduction, or to complete withdrawal, at any time it is required for use by municipalities or for the maintenance of the supply of firm power. Although the Niagara system has a high load-factor it has, of course, daily and seasonal peaks; thus there are, even in times of normal industrial activity, periods of the day and of the year when large amounts of "secondary" power are available. "Secondary" power, however, on account of the uncertainty of the times and durations of the system peaks, is not sufficiently dependable for ordinary industrial uses. A limited amount of such power can be utilized by special industries in certain heating and electrochemical processes. Although Canadian consumers are at all times given priority of consideration, the chief market for "secondary" power which the Commission has had at its disposal on the Niagara system has, up till recently, been in the United States, served by supply systems securing a large proportion of their power from steam plants. Such systems, by utilizing when available this "secondary" power, can conserve their fuel supplies. The sale of this power to the Canadian Niagara Power Company for use in the United States has enabled the Commission to employ profitably its generating equipment at times when not required to take care of the demands of the Niagara system. During the year this Company has continued to take this kind of power in substantial quantities.

Profitable Employment of System Reserve Generating Capacity

In times of curtailed industrial activity the amount of reserve power capacity which it is necessary to maintain, increases. If this reserve capacity can be put to profitable temporary use under conditions or contracts that ensure the maintenance of its character as system reserves, it is an economic gain to the Province and brings to the Hydro undertaking a revenue which reduces the cost of maintaining the essential reserves.

One market for this type of power is found in the production of steam for industrial processes. During the past year the Commission has supplied substantial amounts of secondary power for steam purposes and arrangements are being made to supply other companies in a similar manner. As general economic conditions improve, there will be less reserve power available for this purpose because more will be required for the normal uses of the municipalities. Meantime, it may be noted, the utilization of reserve power for the production of process steam replaces imported coal.

Engineering Assistance to Municipalities

General engineering assistance was given during the year to practically all municipalities in the Niagara system in connection with the operation and management of their local systems.

Certain municipalities received special engineering advice and assistance regarding a number of matters, which are more fully referred to as follows:

Acton—Assistance was given in arranging for new office quarters.

Etobicoke Township—Arrangements were made for doubling the capacity of Islington station.

Exeter—At the request of the Exeter Public Utilities Commission, the Commission's rural office took over the operation of the local system.

Forest Hill—The transfer from York Township to Forest Hill of the distribution system in the village has been under consideration and will be submitted to the electorate at an early date.

Georgetown—The removal of all distribution circuits from the business portion of Main street, excepting those used for street lighting, was completed.

Paris—Reconstruction of part of the distributing system and the installation of new underground feeders was completed during the year. Erection of a new structure for terminating the underground circuits will eliminate a serious hazard and help to prevent a number of interruptions. Plans were prepared and the work supervised by the Commission's engineers.

Sarnia—Installation of one 150-horsepower motor and one 200-horsepower, 4,000-volt slip-ring motor in the waterworks plant was completed. These motors are directly connected to centrifugal pumps which have a capacity of 3,240,000 imperial gallons, and 4,320,000 imperial gallons per 24 hours respectively. The original steam-driven pumps are being retained as a reserve.

Tillsonburg—The local municipal substation is being redesigned to take advantage of the better operation obtainable from modern equipment.

Zurich—Estimates were prepared of the cost of changing the distribution system from 4,000 volts to 8,000 volts. This work has been discussed with the local Board of Trustees and in all probability will be put into effect during the coming summer.

GEORGIAN BAY SYSTEM

There was a small increase in load in the majority of the municipalities amounting in the aggregate to an increase for the system of approximately 2.6 per cent over last year. There was some expansion in the rural power districts, particularly in the summer resort section, but the large grain and quarry loads are still substantially below the demands recorded a few years ago.

The original high-tension line between Waubaushene and Midland was rehabilitated during the year, the two circuits being converted to one and the length of the line shortened by approximately three-quarters of a mile with a resultant improvement both physically and financially for the municipalities at the north end of the Severn district.

General engineering advice respecting the management and operation of the various local distribution systems, together with assistance in connection with the application of rates to power and lighting consumers was rendered to all the municipalities throughout the system.

Assistance of a special nature was given to certain municipalities as follows:

Barrie—To determine the cause of transformer failures, a test and check of the underground power circuit was made.

Huntsville—Further advice and recommendations in connection with proposed ornamental street lighting for the main street was given.

MacTier—The substation was rebuilt and the distribution system changed from 2,200 to 4,000 volts. New primary metering equipment was installed for the C.P.R. load.

Port Sydney—In August the ratepayers of the hamlet of Port Sydney (formerly part of Utterson rural power district) voted in favor of incorporation as a village, but the bill, which received the assent of the Legislature, postpones the date of possible purchase of the distribution system until August, 1935.

EASTERN ONTARIO SYSTEM

In the Eastern Ontario system, which comprises the districts of Central Ontario, St. Lawrence, Rideau, Ottawa and Madawaska, the average monthly primary power increased 10 per cent over 1933. Power to meet the growth was obtained by increased deliveries of purchased supplies under the contract with the Gatineau Power Company for 60-cycle power. This contract is a flexible one and provides for the delivery of additional power on short notice.

The arrangements for supplying power to the St. Lawrence district were changed. A 110,000-volt line from Ottawa to Cornwall station was built in July. The district is now served from the interconnected sources of power on the system and under the terms of the agreement the contract with the Cedars Rapids Power Company was cancelled on July 31.

In August, delivery of power for steam generation to a large paper mill at Cornwall, was commenced. The contract is for a maximum of 26,800 horsepower. By this contract the Commission has disposed of practically all surplus power that is from time to time available on this system. The power for steam generation is of course delivered only when surplus power is available.

Arrangements were nearly completed to supply 300 horsepower to a large mining developing company to operate a property situated in Marmora township.

General engineering assistance and advice was given to nearly all the municipalities served by the system.

Certain municipalities received special engineering advice and assistance which are more fully referred to as follows:

Arnprior—Municipal authorities opened negotiations with the Commission for the purchase of the local distribution plant and for a supply of power from the Madawaska plants under a cost contract. The necessary estimates were made and a proposal submitted by the Commission.

Cardinal—A report on the purchase of a duplicate submarine cable to be laid across the Galops canal was made for the corporation.

Casselman—The corporation requested the Commission to furnish information on the cost of supplying the municipality with power. Estimates were submitted.

Cobden—Following the destruction of a storage dam belonging to the local water power plant, a by-law was passed on September 6, authorizing the purchase of power from the Commission. A transmission line is being constructed from Renfrew to supply power to Cobden from the Madawaska plants.

Cobourg—The Cobourg Public Utilities Commission has installed static condensers in the waterworks to maintain a 90 per cent minimum local system power factor. Similar installations were made by two large customers of the local Commission.

Deseronto—A complete rehabilitation of the 2,200-volt lines of the Deseronto distribution system was completed early in the year.

Napanee—The Napanee Public Utilities Commission has completed the conversion of a series street lighting system to a multiple system with pilot wire control. Extensive general improvements in the distribution system were also completed.

THUNDER BAY SYSTEM

In the Thunder Bay system load increases have taken place during the year, largely due to power sold for electric steam generators at the pulp and paper mills. The power supplied to mining properties has also increased, and the generating plants at Cameron Falls and Alexander have been loaded to capacity at various times during the year.

The installation of 24,000 kw. in electric steam generator equipment was completed and placed in operation at one of the large pulp and paper mills, under the terms of a contract executed at the close of last year. At the present time there are three installations of this kind in operation, and when all are operating at maximum capacity the load varies from 60,000 to 70,000 horsepower. The power for electric steam generation is all sold on an at-will basis and is recallable by the Commission at any time if plant capacity is required to take care of firm power customers.

A new mining contract was executed and power delivered at the close of the year to a property in the Little Long Lac district. One of the existing mining customers installed additional mill capacity, which will increase its demand for power by approximately 60 per cent. It is expected that this new load will be in operation early in the new year. Information was submitted to several prospective mining consumers; it is anticipated that there will be a large increase in the amount of power supplied to mining consumers during the coming year, and that several thousand horsepower may be sold for mining purposes in the course of the next two to four years.

Engineering assistance and advice concerning the maintenance and operation of the various distribution systems was given to the cities of Fort William and Port Arthur, and to the village of Nipigon, and the complete operation of the Port Arthur and Fort William rural power districts was carried on by the Commission on behalf of the various townships concerned.

MANITOULIN RURAL POWER DISTRICT

The district comprises the greater part of the island of Manitoulin, which has been formed into a special rural power district, including the town of Gore Bay and hamlet of Mindemoya. Power is purchased by the Commission from the Little Rapids Pulp Company at Kagawong and distributed throughout the rural power district.

NORTHERN ONTARIO PROPERTIES

Nipissing District

The district includes the area lying north and east of lake Nipissing and is served by three generating plants on the South river, supplemented at times by purchased power from Sturgeon river. The principal customers are the city of North Bay, the town of Powassan, the unincorporated hamlets of

Callander and Nipissing, and the North Bay and Powassan rural power districts, the latter providing for electric service in portions of the townships of West Ferris, Himsworth, Nipissing and Widdifield.

Very little change occurred in the power demands compared with the previous year. Consequently, no changes were required other than those of a routine nature in generating plant, transmission line, transformer stations or municipal distributing systems. A short extension was, however, constructed out of Callander to serve the Dafoe Hospital for the Dionne quintuplets, and power was delivered to this customer just prior to the close of the year.

Abitibi District

The district includes the area lying within transmission distance of the Abitibi Canyon development and takes in the mining districts adjacent to Sudbury, Kirkland Lake, Matachewan, Ramore and Timmins. During the year a contract was made with the Northern Canada Power Corporation for delivery of power at Kirkland Lake, and a transmission line was constructed from Iroquois Falls to Kirkland Lake and a transformer station erected at the line terminal for the purpose of providing service under this contract. At the end of the year the demand of this company was approximately 15,000 horsepower. Contracts were also signed with two mining companies in the Matachewan district, and to serve them the transmission line was extended from Kirkland Lake to Powell township. A transformer station was constructed adjacent to the mine properties. At the end of the year the combined demand in the Matachewan district was about 1,500 horsepower.

A contract with a mining company in the Kirkland Lake district was entered into and a short section of transmission line constructed out of the Kirkland Lake station to serve this customer; the power taken at the end of the year being about 400 horsepower. A contract was also executed covering service to a mining property in Hislop township, and arrangements are being made to construct a transformer station and approximately two miles of transmission line to serve the customer. An agreement was executed covering delivery of power to a mining property in the Timmins district, and to serve this customer arrangements are being made to provide a transformer station and a short transmission line.

Negotiations were conducted with a number of mining properties in the West Shiningtree, Matachewan, Kirkland Lake, Ramore and Timmins districts, and information was submitted covering cost of power and the cost of the necessary transformation and transmission equipment required to serve each property. In all, negotiations of this kind were conducted with fifty-five mining companies in the Abitibi district, and as a result it is anticipated that a number of new contracts will be obtained. Due to power supplied to several new mining customers and to the Northern Canada Power Corporation, a large increase in load has taken place in this district over the previous year, and a greater load increase is anticipated during the coming year.

Engineering assistance was given to the town of Timmins in making a valuation of the distribution system. Assistance was also given to the Matachewan townsite in connection with constructing a distribution system to supply lighting and power to this rapidly growing community.

Sudbury District

The district includes the area adjacent to the city of Sudbury which is served at 60 cycles from three hydro-electric developments on the Wahnapitae river. Power is supplied for municipal and lighting purposes, and also to large mining companies in the Subdury basin. The output of the developments is practically all sold, and any future load expansion will have to be taken care of at 25 cycles from the Abitibi district system, or by the installation of frequency-changer sets for the transformation from 25 to 60 cycles.

A new contract was prepared and forwarded to the city of Sudbury covering a supply of power for its requirements, and a by-law will be submitted to the electors at the next municipal elections.

Negotiations were undertaken with the Treadwell-Yukon Mining Company with respect to the acquisition of the 22,000-volt transmission line between the Coniston generating station and the mine formerly operated by the company at Bradley in the Sudbury basin. It is expected that these negotiations will be completed in the near future.

Espanola District

The district comprises the territory adjacent to the Abitibi Power and Paper Company's power development at Espanola in the southern portion of the district of Sudbury. It is a new district formed this year as the result of a contract executed with the Abitibi Power and Paper Company covering the purchase of a block of 60-cycle power from the Espanola development and serves mining properties in the district.

Patricia District

The district includes the area north-west of lac Seul in Patricia district and comprises all of the territory within transmission distance of the Ear Falls development. At the present time power is being delivered to the Howey Gold Mining Company, and during the year negotiations have been conducted with a large mining property located on McKenzie island in Red Lake district. Negotiations were also carried on with three mining properties located in the Woman Lake district, and it is anticipated that at least one, if not all, of these properties will be supplied with power during the coming year. An investigation was made during the year concerning the installation of additional generating units at the Ear Falls development for the purpose of taking care of increased mining load.

St. Joseph District

The district comprises the territory immediately north of lake Joseph in Patricia district. Contracts were signed during the year with two mining companies, and the construction of a power development was undertaken at Rat Rapids on the Albany river. It is expected that the development will be completed early in the new year. The estimated initial power demand under the two contracts will be in the neighborhood of 1,000 horsepower.

RURAL ELECTRICAL SERVICE

IN ONTARIO

The Province of Ontario extends over a vast area of 400,000 square miles, the southerly portion commonly known as "Old Ontario" contains most of the settled population. In this territory there is an assessed area of approximately 40,000 square miles, containing about 22,000,000 acres of which 75 per cent is cleared land for agricultural purposes. The total rural population in this area exceeds 1,100,000.

The Commission estimates that within reasonable transmission distance of the present transmission lines and stations about 65,000 farms may be served. At the end of 1934 approximately one-half of these farms were receiving electrical service.

There are 171 operating rural power districts and power is delivered to approximately 64,000 rural consumers, comprising farms and dwellings in various groups. The consumers are situated in 353 townships and 93 police villages and are served over networks of rural primary lines, which aggregate nearly 9,500 miles. In addition to the 353 townships served by rural power districts, 10 townships are served jointly by rural power districts and voted areas.

The widespread use of modern conveniences, such as the radio, telephone and automobile, has brought the rural dweller into close touch with the life of the cities; the annual fairs and exhibitions have made him familiar with the application of electrical appliances and machinery suitable for work on the farm. Nevertheless the conception which many rural residents at first have in regard to their electrical requirements is often confined to lighting of the house and barn.

In order to encourage the more liberal use of electric power by Ontario farmers, studies were made during the year which had for their objective the further reduction of rural rates and the beneficial utilization of surplus energy. As a result of these studies three major benefits were approved as follows:

1. *Free Service*

Commencing November 1, 1934, and during a period of three years thereafter, the Commission will provide current free of charge, to operate electric washing machines, licensed alternating current radios, and electric pumps to provide water under pressure for household sanitary systems.

The offer is available to all present farm and hamlet users (excepting summer cottages) now supplied from all Hydro rural power district lines in Ontario, who are paying standard rural rates approved for each district. It applies also to all new farm and hamlet homes which may be added to these lines as consumers during the three-year period.

2. *Maximum Consumption Charge*

The Commission has found that the maximum economic limit of the first domestic use throughout the Province is 6 cents per kilowatt-hour. It has been decided therefore that in all rural power districts where the first consumption rate exceeds 6 cents per kilowatt-hour, this rate will be reduced to a maximum of 6 cents per kilowatt-hour. The maximum second rate of 2 cents per kilowatt-hour applies to all districts.

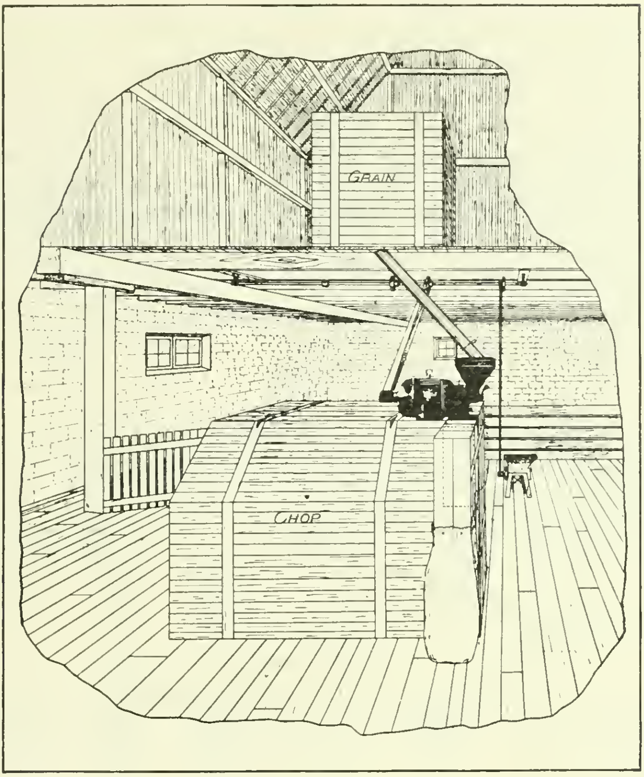
3. *New Low Third Consumption Rate for Long Hour Users*

During the year the Commission made available for rural consumers a special energy rate for long hour uses of power by rural consumers. This particularly affects under-earth heating (hot-beds) and heating of water. Where the use of power may be obtained from the present equipment, a third follow-up rate of 0.75 cents gross, is given in all districts. The first rate remains unchanged, except that as pointed out in number 2, it is subject to a maximum of 6 cents per kilowatt-hour, and the kilowatt-hours to be charged at the first rate remain unchanged. The number of kilowatt-hours to be charged at the second rate varies both with the class of service and the first kilowatt-hour rate. The following schedule shows the class of service, the number of kilowatt-hours per month to be charged for at the first rate, and the number of kilowatt-hours at the second rate according to the governing first rate.

SCHEDULE—FOR EACH CLASS OF RURAL SERVICE—OF KILOWATT-HOURS PER MONTH TO BE CHARGED FOR AT THE FIRST CONSUMPTION RATE, AND AT THE SECOND CONSUMPTION RATE

All kilowatt-hours in excess of the sum at the first and second rates to be billed at 0.75 cents per kilowatt-hour.

Class of rural service	Number of kw-hrs. per month at first energy rate	Number of kw-hrs. per month at second energy rate				
		Where first energy rate in district is:				
		more than 5 cents	4.1 cents to 5 cents	3.1 cents to 4 cents	3 cents	less than 3 cents
1B	30	45	60	75	105	120
1C	30	120	150	180	240	270
2A	30	45	60	75	105	120
2B	30	120	150	180	240	270
3	42	108	138	168	228	258
4	70	180	230	280	380	430
5	70	180	230	280	380	430
6	126	324	414	504	684	774
7	210	540	690	840	1,140	1,290



RURAL ELECTRICAL SERVICE IN ONTARIO

The utility-motor chopper set up as shown permits chopping to be done while the operator is otherwise employed in the barn. The line shafting, when belted to the motor, will suppiy power for many other machines used in the barn

Provincial Government Aids Rural Electrical Service

Assistance respecting electrical service is given by the Province to farmers and rural residents in three ways, namely:

First—A "grant-in-aid" toward the initial capital cost of supplying electrical service, amounting to 50 per cent of the cost of line and secondary equipment necessary to deliver power from the supply point of the Commission's stations or of a city, town, village, etc., to the customer's property. This is the maximum amount provided for by *The Rural Hydro-Electric Distribution Act.*

Second—Authority was granted to the Commission by the Province in *The Rural Power District Service Charge Act,* 1930, to fix a maximum service charge for any class of service in a rural power district. Where as may be the case in newly established rural power districts such maximum service charge is not sufficient to meet the necessary cost of service, as specified by the Commission, the deficit is chargeable to and payable out of the Consolidated Revenue Fund of the Province. Payments made out of the Consolidated

Revenue Fund for this purpose, on account of any rural power district, are charged to that rural power district in a special account—known as the "Rural Power Service Suspense Account"—in the books of the Treasurer of Ontario, and any surplus thereafter arising from any maximum service charge in that rural power district is paid to the Treasurer of Ontario and placed to the credit of the rural power district in such suspense account until the deficit is extinguished. Where a temporary deficit arises in any rural power district owing to the application of the maximum service charge, such maximum service charge must remain in force and be charged in that rural power district until the deficit is extinguished.

The following tabulation shows the present maximum service charge, in effect since January 1, 1930.

SERVICE CHARGES IN RURAL POWER DISTRICTS—SINCE JAN. 1, 1930

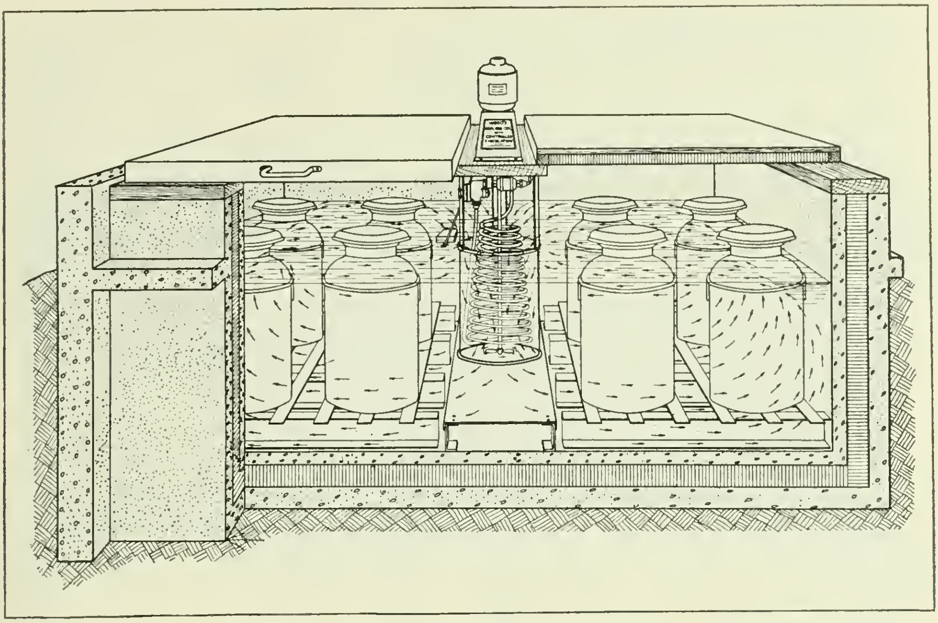
With Provincial Grant-in-Aid—25-cycle and 60-cycle Service

Class of rural service	Units per consumer*	Approx. number of customers per mile of line	Demand allowed consumer in k-w.	Kilowatt-hours per month at first rate	Gross annual service charge	Gross monthly service charge	Net annual service charge	Net monthly service charge
					$ c.	$ c.	$ c.	$ c.
1B	2.25	6.8	1.32	30	18.00	1.50	16.20	1.35
1C	3.75	4.0	2.0	30	27.96	2.33	25.20	2.10
2A	1.90	8.0	1.32	30	20.64	1.72	18.60	1.55
2B	3.50	4.3	2.0	30	27.96	2.33	25.20	2.10
3	**5.00**	**3.0**	**3.0**	**42**	**33.36**	**2.78**	**30.00**	**2.50**
4	5.35	2.8	5.0	70	36.00	3.00	32.40	2.70
5	7.50	2.0	5.0	70	50.04	4.17	45.00	3.75
6A	12.50	1.2	9.0	126	62.04	5.17	55.80	4.65
6B	12.50	1.2	9.0	126	70.68	5.89	63.60	5.30
7A	20.00	0.74	15.0	210	92.64	7.72	83.40	6.95
7B	20.00	0.7	15.0	210	111.36	9.28	100.20	8.35

*Before a rural primary line is constructed contracts equivalent to 15 primary units per mile must be signed. (For explanation of units see accompanying text.) Thus three Class 3 consumers at 5 units each equals 15 units. Service charges are adjusted so that each class of service bears its equitable share of the cost.

Note: For classification of services see page 84.

Third—An Act—*The Rural Power District Loans Act, 1930*—to provide for granting aid towards the installation of electrical works in rural power districts was passed in 1930. The purpose of the Act is to provide, subject to regulations, advances toward the installation of electrical services in rural power districts. Aid may be granted for the wiring from the transmission or distribution lines of the Commission into and throughout dwellings, farms, out-houses, and any other works which may from time to time be specified by the regulations. In addition to the wiring, loans may be obtained on transformers, motors, or other appliances, as may be necessary or expedient for any industrial, agricultural or domestic purpose which may be specified in the regulations.



RURAL ELECTRICAL SERVICE IN ONTARIO

Milk cooling by electric refrigeration with agitation is now being used by progressive Ontario farmers to their economic advantage. It is reported that this method of cooling is less expensive, more reliable and certainly cleaner than ice

Rural Loans

Authority given to the Hydro-Electric Power Commission under *The Rural Power District Loans Act, 1930,* to finance the installation of wiring and the purchase of electrical farm equipment by rural consumers enabled the Commission during the past year to make loans to a number of farm users for the above purpose.

During the fiscal year ending Oct. 31, 1934, there were received 107 applications for loans; of this number 7 were withdrawn, 10 did not fulfill the requirements and 22 were awaiting the receipt of final papers. In 3 cases the applicants changed their minds after cheques had been issued and did not require the loan. Out of the 29 applications held over from last year, 16 were finally granted. The net result is that a total of 81 loans were made during the fiscal year.

Since the Rural Power District Loans Act was put into force, 602 applications have been received and 452 loans granted. The following table shows the number of applications approved and granted in rural power districts in various systems:

LOANS GRANTED TO CONSUMERS IN RURAL POWER DISTRICTS

System	Total to Oct. 31, 1933		Fiscal Year 1933-34		Total to Oct. 31, 1934	
	No.	Amount	No.	Amount	No.	Amount
		$		$		$
Niagara	259	53,395	71	12,735	330	66,130
Georgian Bay	85	23,792	6	1,235	91	25,027
Eastern Ontario	22	6,103	3	550	25	6,680
Thunder Bay			1	335	1	335
Manitoulin R.P.D.	5	1,060			5	1,060
Totals	371	84,377	81	14,855	452	99,232

The average loan is $219.54.

DETAILS OF RURAL LOANS GRANTED TO OCTOBER 31, 1934

Items applied for (including installation) in loans which have been made	Totals for 371 applications granted to Oct. 31, 1933		For 81 applications granted during year ended Oct. 31, 1934		Totals for 452 applications granted to Oct. 31, 1934	
	Number affected	Cost to consumers	Number affected	Cost to consumers	Number affected	Cost to consumers
		$ c.		$ c.		$ c.
Service	172	9,527.14	15	580.74	187	10,107.88
House wiring	171	17,216.90	15	1,120.00	186	18,336.90
Building wiring	171	15,083.13	17	925.27	188	16,008.40
Motors	38	3,995.26	3	122.70	41	4,117.96
Grain grinders	197	35,110.72	67	12,563.00	264	47,673.72
Pumping systems	16	1,612.53	2	490.00	18	2,102.53
Milking machine	6	1,466.00			6	1,466.00
Washing machines	25	2,827.00	1	65.00	26	2,892.00
Totals		86,838.68		15,866.71		102,705.39

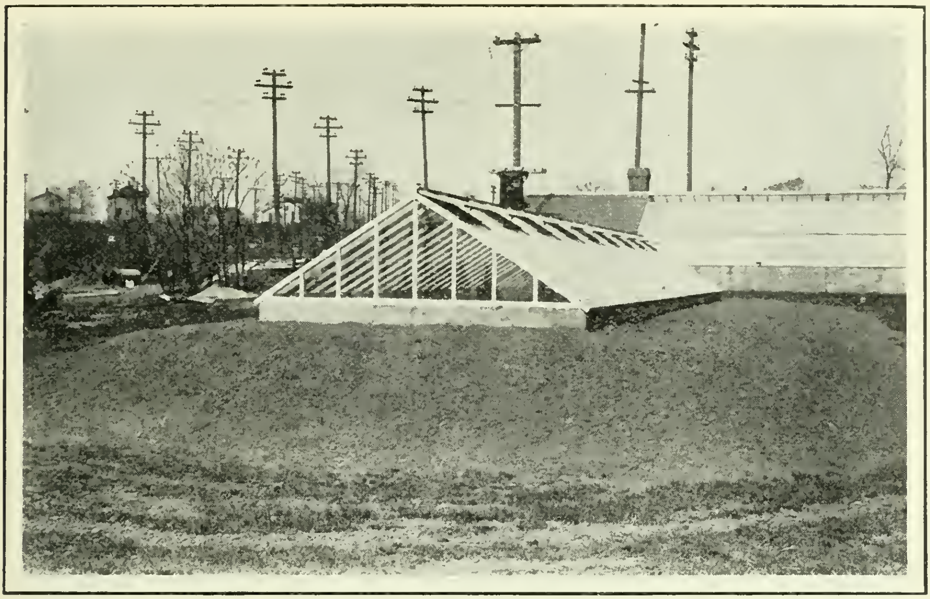
Respecting the 452 applications which have been granted the following table shows the number of loans approved and their terms:

One year term	5 loans	Six year term	7 loans
Two " "	5 "	Seven " "	73 "
Three " "	31 "	Eight " "	9 "
Four " "	12 "	Nine " "	0 "
Five " "	272 "	Ten " "	38 "

Up to October 31, 1934, 49 loans had been repaid in full, either through the fact that the loans matured or because of the improved financial position of the borrower.

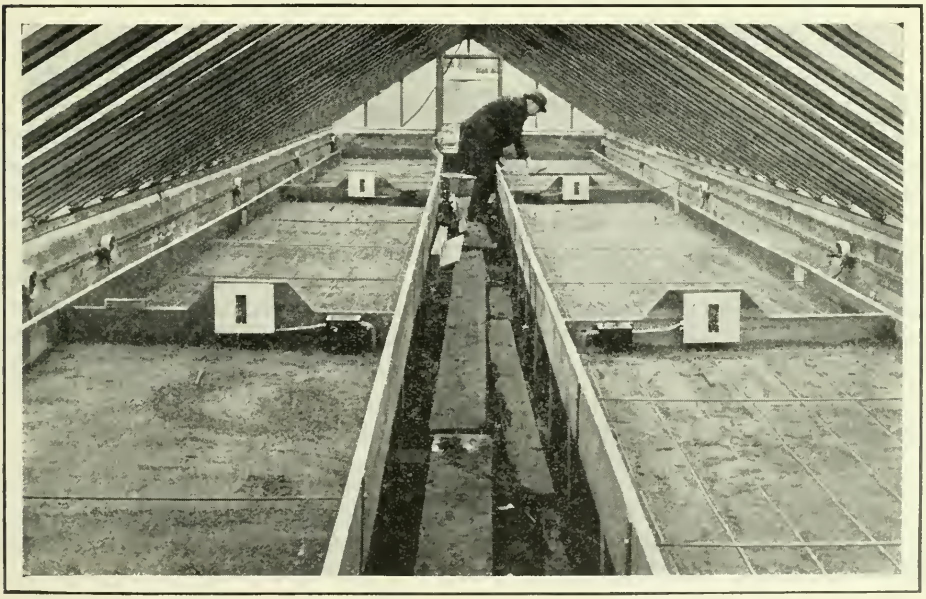
The application of the Rural Power District Loans Act was extended during the year to include approved electric milk coolers and electrically operated cream separators.

During the last month of the fiscal year there was a marked increase in the number of applications for loans.



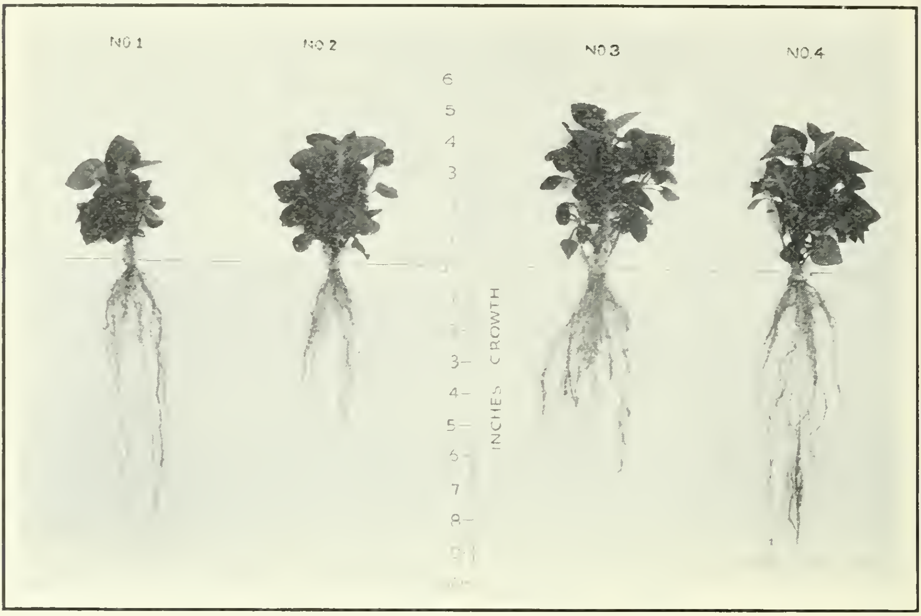
RURAL ELECTRICAL SERVICE IN ONTARIO

Exterior view of a low-set greenhouse. Such greenhouses have low heat losses and are specially adapted to electric soil heating of the benches



RURAL ELECTRICAL SERVICE IN ONTARIO

Interior of low-set greenhouse showing installation of electric soil heating, cables and controls on the benches. This type of greenhouse perhaps in simpler form, built at low cost but tight, can advantageously be used by many market gardeners and rural residents. The automatic control of temperature is a great asset



RURAL ELECTRICAL SERVICE IN ONTARIO

Electric hot-beds produce superior growth both above and below ground. Illustrations show ageratum plants on completion of growth in hot-beds. Nos. 1 and 2 were grown in a manure heated bed; Nos. 3 and 4 in a bed with electric soil heat automatically controlled

The extent and effect of the Province's financial assistance with respect to the distribution of power in rural districts should be clearly understood. The Government grant-in-aid relates solely to the initial capital investment for distribution facilities in rural power districts. Having made its grant-in-aid, the Government further participates in the operation of each district in that it guarantees a maximum service charge, otherwise its participation in the operation of the property ceases. Each rural power district not only pays the cost of operation, maintenance and administration of its lines, but also sets up reserves for renewals, obsolescence and contingencies on the whole of the equipment and lines, as well as for sinking fund on the investment made by the Commission on behalf of the townships served.

The aggregate rural load distributed in October of this year shows a satisfactory increase on all systems. The October load in 1934 was about 5 per cent. greater than the October load of the previous year.

The accompanying diagrams and tables illustrate the growth in rural electrical service in Ontario during the last fourteen years. There are indications that a substantial further growth may shortly take place.

RURAL ELECTRICAL SERVICE IN ONTARIO

Harvesting eggplants at Burlington which were propagated by electric soil heat. The grower was greatly pleased with the results

Construction

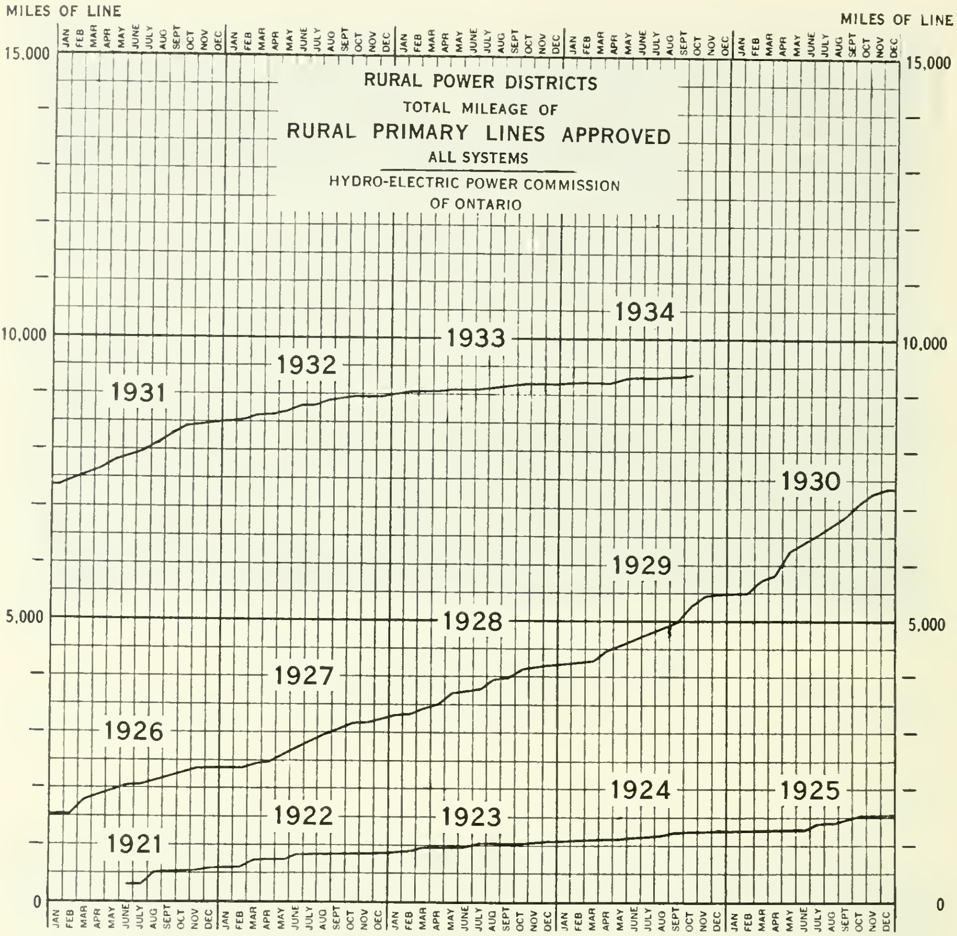
During the past year construction in the rural power districts was less than a few years ago. In part, this is due to the fact that in most rural power districts the main power lines are already constructed so that extensions now being made require shorter lengths of new primary line on the highways.

The total mileage of rural lines constructed to the end of 1934, to serve rural consumers, amounted to approximately 9,500 miles. The capital expenditure approved for rural construction during the past year was $590,292.78, and the aggregate peak load in October, 1934 reached 33,949 horsepower. For the coming year arrangements have been made to construct about 470 miles of additional rural lines.

The tabulation on page 74 shows the extensions approved during the year, the number of consumers, the amounts of power supplied, the capital expenditures and the amount of Provincial "grant-in-aid" of rural lines approved by the Government.

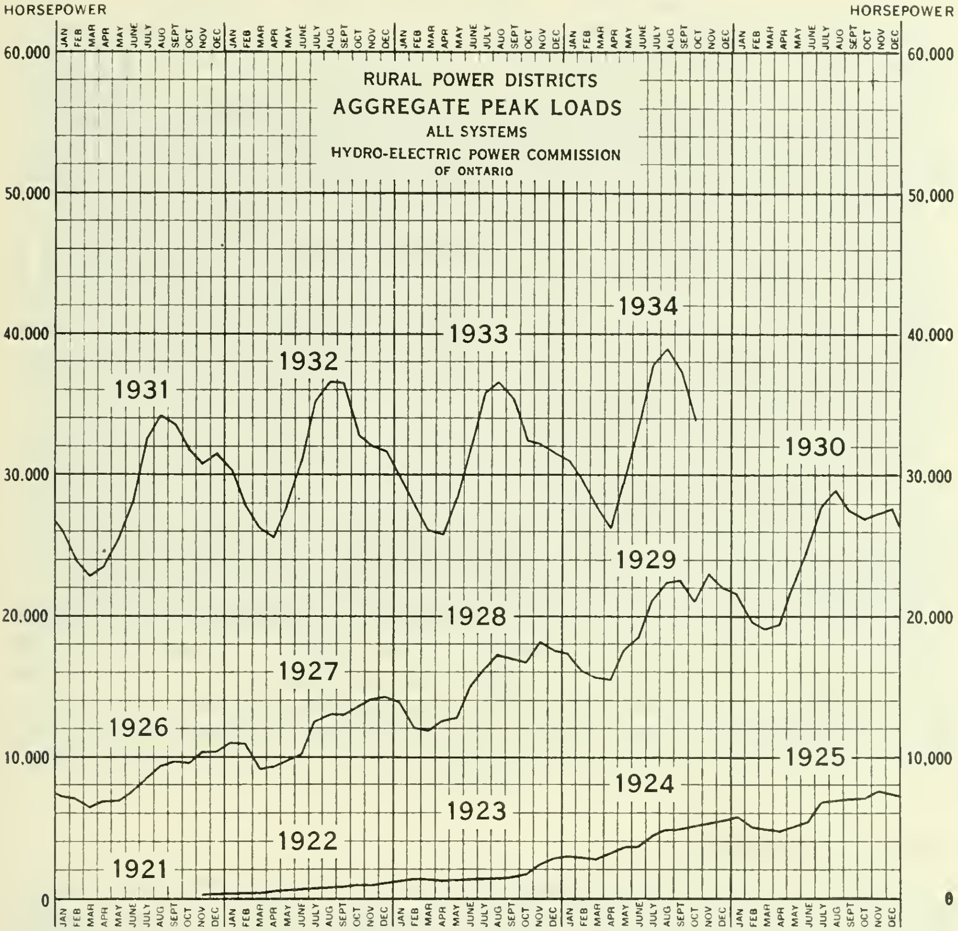
Rates for Rural Electrical Service

Rates to rural consumers are based upon service "at cost"—account being taken of the Provincial "grant-in-aid" for rural work and the operation of the provision for a maximum service charge—and as in urban centres the



RURAL LINE EXTENSIONS APPROVED BY THE COMMISSION DURING THE YEAR 1934

System	Miles of primary line	Number of consumers			Power supplied in October, 1934	Capital approved for extensions	
		Hamlet	Farm	Total		Total	Provincial grant-in-aid
					h.p.	$ c.	$ c.
Niagara	115.26	636	521	1,157	25,726	396,542.26	198,271.13
Georgian Bay	28.77	279	103	382	2,490	85,954.00	42,977.00
Eastern Ontario	35.71	245	136	381	5,421	95,810.52	47,905.26
Thunder Bay	2.84	12	14	26	121	8,071.00	4,035.50
Manitoulin R.P.D.	......	2	......	2	88	690.00	345.00
Northern Ontario properties:							
Nipissing district	0.52	42	5	47	103	3,225.00	1,612.50
Total	183.10	1,216	779	1,995	33,949	590,292.78	295,146.39



SUMMARY OF RURAL LINE EXTENSIONS

As Approved by the Commission from June 1, 1921 to Oct. 31, 1934 Constructed or Under Construction

System	Miles of primary line	Number of consumers			Capital approved for extensions	
		Hamlet	Farm	Total	Total	Provincial grant-in-aid
					$ c.	$ c.
Niagara	6,766.75	23,041	22,656	45,697	14,925,424.89	7,439,432.44
Georgian Bay	891.25	4,323	1,880	6,203	1,827,572.95	872,658.99
Eastern Ontario	1,670.54	7,014	4,105	11,119	3,708,055.31	1,854,027.65
Thunder Bay	80.96	123	164	287	143,371.00	71,685.50
Manitoulin R.P.D.	37.25	145	20	165	63,613.00	31,806.50
Northern Ontario properties:						
Nipissing district	14.62	335	34	369	47,319.00	23,659.50
Total	9,461.37	34,981	28,859	63,840	20,715,356.15	10,293,270.58

rates are made up of two parts, a service charge and a consumption charge. In any given rural power district the service charge to a consumer depends primarily upon the individual connected load or demand which determines his class rating (see "Classification of Services") but this is modified in the earlier years of operation of a rural power district by the provision respecting maximum service charge; the consumption charge is based upon a first, second and third kilowatt-hour rate and is largely determined by the cost of power at the source of supply to the rural power district.

For the purpose of determining the service charge, each mile of line is assumed to represent a minimum of 15 units and to each class of service is assigned a value in such units. The accompanying table gives this information and shows the annual and monthly service charges applicable to each class of service. More than 90 per cent of the contracts entered into for farm service are either Class 2B or Class III. These, therefore, are the representative classes for individual farm service.

Rather more than half the consumers in rural power districts are grouped in hamlets or small villages closely identified with rural activities, and these consumers are usually in Class 1B or Class 1C. It is pointed out that rural power districts do not include suburban districts or larger villages. These have their own electrical utilities.

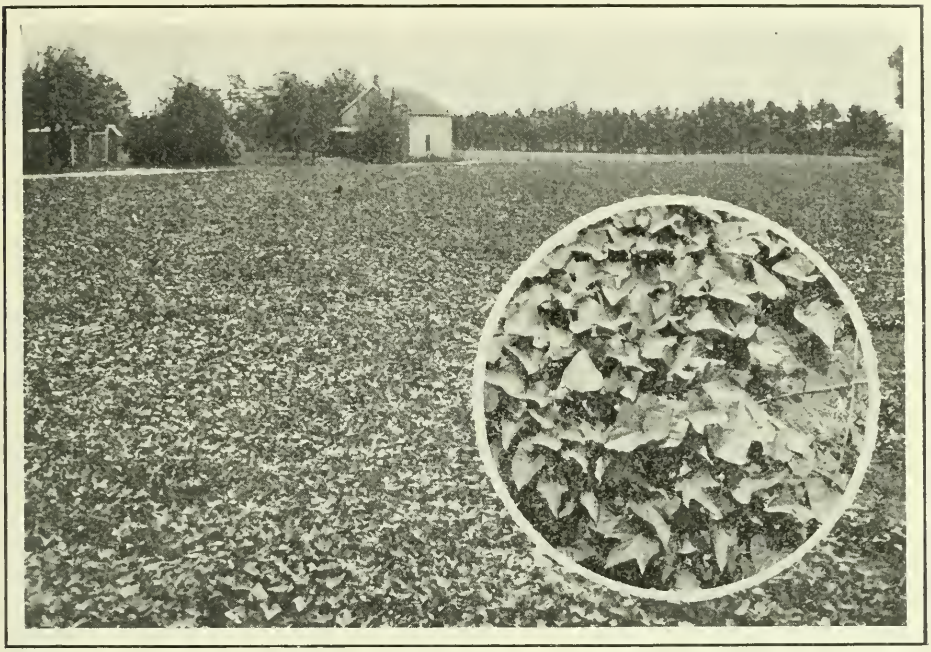
Usually new rural power districts begin at standard rural rates and these constitute the maximum rates submitted to the proposed consumers. As the average number of consumers per mile of line increases, the service charges may be, and in practice have been, reduced; and with increased consumption the rates per kilowatt-hour are also lowered. Thus, in older-established rural power districts the total cost of service is much below the initial standard rates.

Contracts with Consumers

Power agreements hitherto made between rural customers and townships have been for a period of twenty years. When rural power service was inaugurated on a principle of service at cost, this period was considered advisable for all rural contracts in order to protect the interests of the rural consumers themselves, as partners embarking in an undertaking involving collective responsibility for a substantial capital investment, to be liquidated over a period of years. The contract provision thus constituted, as between consumers, a mutual guarantee with respect to service charges. Without such assurance extensions in the early years would have been greatly hampered.

As the number of consumers on the rural lines constructed increased and rural consumers, generally, throughout the Province became better informed as to the possible uses of electric power on the farm, rural electrical service became well established.

The Commission has, for some time, been considering the reduction of the "term" of the rural contracts, and, during the year approved a recommendation to the municipalities that all existing and future rural contracts be for a period of 5 years from the date on which the customer commenced to take and use electrical energy, instead of 20 years as hitherto. After the 5-year period has expired the contracts will continue in force on a year-to-year basis, unless cancelled by one year's notice, in writing, by either party.



RURAL ELECTRICAL SERVICE IN ONTARIO

Electric soil heat enables certain crops to be grown which cannot easily be produced commercially by other methods. Illustration shows a field of sweet potatoes grown in 1934 at Burlington, sprouts for which were produced by electric soil heat. The harvest greatly exceeded the grower's expectations

It is provided, however, that this change in contract term shall not take effect unless and until the Councils of all of the various townships forming part of each rural power district pass by-laws approving of such amendment in existing and future rural power contracts.

A consumer, who has a loan under The Rural Power District Loans Act, shall not be entitled to avail himself of cancellation of his rural contract with the township until after all obligations under the said loan have been discharged.

This proposed change in term of contract does not apply to "guarantee" contracts.

Towards the end of the year about 90 per cent of these townships passed the necessary by-law and five-year agreements are available in most rural power districts. It is expected that many of the remaining townships will pass the by-law, so that the new agreements will be available in practically all the Province.

At the end of this section a tabulation of the rural power districts shows the miles of line, the number of consumers and the rate schedules for each district of the several systems.

RURAL POWER DISTRICTS—MILES OF LINE, NUMBER OF CONSUMERS AND RATES—OCTOBER 31, 1934

NIAGARA SYSTEM

Rural power district				Rural rates											Gross consumption charges per kilowatt-hour			Prompt payment discount on gross bill
			Class	1B	1C	2A	2B	3*	4	5	6A	6B	7A	7B				
			Monthly consumption charged for at first energy rate — No. of kw-hrs. per month	30	30	30	30	42	70	70	126	126	210	210				
			Monthly consumption charged for at second energy rate — No. of kw-hrs. where first energy rate is less than 3 cts.	120	270	120	270	258	430	430	774	774	1290	1290				
			3 cts.	105	240	105	240	228	380	380	684	684	1140	1140				
			3.1 to 4 cts.	75	180	75	180	168	280	280	504	504	840	840				
			4.1 to 5 cts.	60	150	60	150	138	230	230	414	414	690	690				
			more than 5 cts.	45	120	45	120	108	180	180	324	324	540	540				
	Property number	Miles of line	No. of consumers	Gross monthly service charge											First energy rate	Second energy rate	Rate for all additional	
				$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	cents	cents	cents	%
Acton	N5 D1	8.85	24	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Ailsa Craig	N4 D7	6.00	16	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†6.5	2	0.75	10
Alvinston	N18 D9	4.50	9	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Amherstburg	N15 D3	67.02	593	1.30	2.33	1.60	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Aylmer	N11 D2	112.45	638	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Ayr	N12 D4	23.76	89	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Baden	N7 D1	97.83	443	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Beamsville	N44 D3	159.32	1,514	1.20	2.11	1.56	2.11	2.50	2.72	3.78	4.67	5.33	6.94	8.39	3	1.5	0.75	10
Belle River	N15 D2	43.83	371	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Blenheim	N14 D3	60.47	316	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Bond Lake	N3 D3	166.04	1,629	1.10	1.98	1.46	1.98	2.36	2.55	3.54	4.39	5.01	6.56	7.89	3	1.5	0.75	10
Bothwell	N14 D10	39.39	142	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Brampton	N13 D2	52.93	171	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Brant	N12 D1	112.69	582	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Brigden	N18 D8	36.61	115	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Burford	N12 D2	50.80	267	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Caledonia	N2 D5	103.09	512	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Chatham	N14 D1	144.25	812	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Chippawa	N1 D7	25.98	184	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Clinton	N8 D11	70.53	369	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10

Delaware	N4 D3	139.59	666	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Dorchester	N4 D1	111.16	596	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Dresden	N14 D12	24.23	77	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Drumbo	N12 D5	58.98	265	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Dundas	N2 D1	114.51	761	1.30	2.21	1.63	2.21	2.64	2.85	3.96	4.91	5.60	7.33	8.82	3	1.25	0.75	10
Dunnville	N1 D9	19.33	104	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
			‡	1.00	1.86	1.38	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3.5	2	0.75	10
Dutton	N11 D3	47.40	174	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Elmira	N7 D3	24.45	87	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Elora	N5 D4	47.36	261	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Essex	N15 D7	88.04	456	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Exeter	N4 D6	68.43	656	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Forest	N18 D6	41.65	149	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Galt	N6 D2	39.73	327	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Georgetown	N5 D2	57.56	273	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Goderich	N8 D2	50.13	190	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Grantham	N44 D1	64.28	834	1.00	1.50	1.25	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3	1.5	0.75	10
Guelph	N5 D3	94.87	572	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
			§	1.20	2.18													
Haldimand	N2 D8	57.89	292	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Harriston	N8 D5	23.75	60	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Harrow	N15 D4	68.50	642	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Ingersoll	N10 D3	181.25	613	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5.5	2	0.75	10
Jordan	N44 D2	37.09	399	1.05	1.86	1.38	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3	1.5	0.75	10
Keswick	N3 D5	58.10	1,069	1.20	2.10	1.55	2.10	2.50	2.70	3.75	4.65	5.30	6.95	8.35	4	2	0.75	10
Kingsville	N15 D5	132.48	1,417	1.00	1.80	1.25	1.98	2.36	2.55	3.54	4.39	5.01	6.56	7.89	3	2	0.75	10
Listowel	N8 D8	80.75	346	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
London	N4 D2	196.26	2,170	0.90	1.65	1.15	1.75	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3	1.5	0.75	10
Lucan	N4 D5	33.68	131	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Lynden	N2 D2	58.14	244	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Markham	N3 D1	121.34	912	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Merlin	N14 D15	94.13	329	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Milton	N13 D3	68.06	350	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Milverton	N8 D9	41.42	173	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Mitchell	N8 D7	69.81	348	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4.5	2	0.75	10
Newmarket	N3 D4	65.82	381	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Niagara	N1 D1	49.13	313	1.20	2.15	1.63	2.21	2.64	2.85	3.96	4.91	5.60	7.33	8.82	3	1.5	0.75	10

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*See footnote on page 84. †New rate 6 cents effective November, 1, 1934. ‡Lowbanks extension. §Suburban area.

RURAL POWER DISTRICTS—MILES OF LINE, NUMBER OF CONSUMERS AND RATES OCTOBER 31, 1934

NIAGARA SYSTEM—Continued

Rural power district	Rural rates																	
	Class			1B	1C	2A	2B	3*	4	5	6A	6B	7A	7B	Gross consumption charges			Prompt payment discount
	Property number	Miles of line	No. of consumers	Gross monthly service charge											First energy rate††	Second energy rate††	Rate for all additional	
				$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	cents	cents	cents	%
Norwich	N10 D1	111.89	491	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Oil Springs	N18 D3	20.81	116	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Palmerston	N8 D6	38.06	110	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Petrolia	N18 D5	14.98	63	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Preston	N6 D1	145.80	1,037	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.25	0.75	10
Ridgetown	N14 D2	104.88	701	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
St. Jacobs	N7 D2	69.94	378	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
St. Marys	N9 D1	117.30	431	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
St. Thomas	N11 D1	168.82	1,134	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Saltfleet	N17 D1	94.22	1,603	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Sandwich	N15 D1	129.53	2,054	1.00	1.86	1.38	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3.5	1.5	0.75	10
Sarnia	N18 D4	87.78	1,220	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Scarboro	N3 D2	86.56	816	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Seaforth	N8 D10	16.60	146	1.10	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Simcoe	N12 D6	74.52	363	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Stamford	N44 D4	8.37	300	1.30	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Stratford	N8 D4	37.17	227	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Strathroy	N4 D4	79.15	228	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Streetsville	N13 D1	104.89	452	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Tavistock	N8 D1	81.33	294	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Thamesville	N14 D11	68.31	271	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Tilbury	N14 D14	63.34	263	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Tillsonburg	N10 D4	114.66	589	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	2	0.75	10
Wallaceburg	N14 D13	87.12	557	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Walsingham	N12 D7	108.46	478	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Walton	N8 D3	42.87	262	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Waterdown	N2 D3	71.03	970	1.20	1.89	1.39	1.89	2.22	2.44	3.33	4.17	4.72	6.22	7.44	2.5	1	0.75	10
Waterford	N12 D3	71.31	308	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Watford	N18 D7	17.75	56	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10

Welland	N1 D5	286.50	2,674	1.00	1.86	1.38	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3	1.5	0.75	10
Woodbridge	N16 D1	197.69	999	1.45	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	2	0.75	10
Woodstock	N10 D2	129.47	673	1.30	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	2	0.75	10

Total, Niagara system, 6,766.75; 45,697. *See footnote on page 84. ††See heading to first page of table.

GEORGIAN BAY SYSTEM

Alliston	S32 D1	23.57	141	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Arthur	E13 D2	2.40	8	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Bala	GB13 D1	41.27	251	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Barrie	S4 D1	61.17	487	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Baysville	M10 D1	32.23	149	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Beaumaris	M7 D1	33.95	279	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Beaverton	W2 D1	27.56	340	{1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
			‡	{1.22	1.89	1.39	1.89	2.22	2.44	3.33	4.17	4.72	6.22	7.44				
Beeton	S33 D1	1.80	5	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Bradford	S37 D1	27.07	82	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Bruce	E19 D1	63.35	283	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Buckskin	S24 D1	1.20	15	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Cannington	W3 D1	10.09	51	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Chatsworth	E3 D1	....	22	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Cookstown	S35 D1	0.50	2	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Creemore	S10 D2	30.12	135	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Elmvale	S7 D1	25.50	156	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5.5	2	0.75	10
Flesherton	E1 D1	2.60	23	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†6.5	2	0.75	10
Gravenhurst	M4 D1	3.04	22	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Hawkestone	S9 D1	28.95	180	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Holstein	E7 D1	.50	8	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Huntsville	M2 D1	28.70	101	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Innisfil	S31 D1	29.08	587	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†6.5	2	0.75	10
Lucknow	E24 D1	.11	2	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Mariposa	W9 D1	48.19	311	{1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
			§	{1.20	2.20													
Markdale	E1 D2	20.70	85	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	{6	2	0.75	10
															†{8§§	2	0.75	10
Meaford	E14 D1	1.00	5	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Medonte	S18 D1	9.14	56	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Midland	S1 D1	12.23	43	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Neustadt	E8 D1	.50	4	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10

†New rate 6 cents effective November 1, 1934. ‡Cedarhurst and Maple Beach Extensions. §Greenbank Extension. §§Berkeley Station Extension.

RURAL POWER DISTRICTS—MILES OF LINE, NUMBER OF CONSUMERS AND RATES—OCTOBER 31, 1934

GEORGIAN BAY SYSTEM—Continued

Rural power district	Class....			1B	1C	2A	2B	3*	4	5	6A	6B	7A	7B	Gross consumption charges			Prompt payment discount
	Property number	Miles of line	No. of consumers	Gross monthly service charge											First energy rate††	Second energy rate††	Rate for all additional	
				$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	cents	cents	cents	%
Nottawasaga	S5 D1	8.22	99	1.25	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Orangeville	E12 D1	22.88	79	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Owen Sound	E2 D1	5.52	50	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Port Perry	W12 D1	49.42	370	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Ripley	E24 D2	4.32	13	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Sauble	E46 D1	11.45	56	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Shelburne	E10 D1	18.44	50	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Sparrow Lake	W1 D1	34.34	264	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Tara	E15 D1	25.75	112	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Thornton	S36 D1	8.00	31	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Utterson	M8 D1	21.61	119	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10
Uxbridge	W11 D1	62.15	211	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Wasaga Beach	S10 D1	16.68	636	1.25	2.00	......	......	......	......	......	......	......	......	......	5	2	......	10
Wroxeter	E22 D1	35.95	280	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†8	2	0.75	10

Total, Georgian Bay system, 891.25; 6,203. *See footnote on page 84. ††See heading to first page of table.

EASTERN ONTARIO SYSTEM

Rural power district	Property number	Miles of line	No. of consumers	1B	1C	2A	2B	3*	4	5	6A	6B	7A	7B	First energy rate††	Second energy rate††	Rate for all additional	Prompt payment discount
Alexandria	L15 D1	20.33	101	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Arnprior	QM10 D1	4.97	53	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Belleville	C38 D1	85.00	684	1.20	2.15	1.45	2.25	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3.5	1.5	0.75	10
Bowmanville	C23 D1	29.16	126	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Brighton	C6 D1	10.65	62	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Brockville	L3 D1	99.17	667	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Campbellford	C11 D1	21.59	79	1.20	2.15	1.50	2.25	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Carleton Place	H5 D1	.50	1	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Chesterville	L5 D1	47.82	354	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Cobourg	C13 D1	97.22	469	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Colborne	C7 D1	36.75	212	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10

Fenelon Falls	C30 D1	24.24	144	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Iroquois	L9 D1	90.42	450	Special														
Kemptville	H9 D1	5.43	44	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Kingston	C44 D1	122.49	741	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Lakefield	C18 D1	28.59	103	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Lindsay	C29 D1	21.35	137	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Martintown	L13 D1	24.29	143	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10
Maxville	L14 D2	62.07	399	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7 ‡6	2 2	0.75 0.75	10 10
Millbrook	C25 D1	20.73	123	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Napanee	C43 D1	111.02	530	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Nepean	T1 D1	184.17	1,142	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	3	1.5	0.75	10
Newcastle	C22 D1	29.45	130	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Norwood	C31 D1	8.03	62	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Omemee	C26 D1	5.22	8	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Oshawa	C24 D1	117.96	1,559	1.00	1.86	1.38	1.86	2.22	2.40	3.34	4.14	4.71	6.18	7.42	3	1.75	0.75	10
Perth	H2 D1	15.92	74	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Peterborough	C20 D1	63.84	1,093	.63	1.16	.79	1.21	1.59	1.66	2.01	2.57	2.91	3.81	4.62	4	2	0.75	10
Prescott	L2 D1	37.07	200	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Renfrew	QM16 D1	9.62	47	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Smiths Falls	H3 D1	55.88	354	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Stirling	C35 D1	27.81	113	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Trenton	C3 D1	42.82	206	1.35	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	5	2	0.75	10
Warkworth	C49 D1	.40	6	1.50	2.33	1.27	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Wellington	C45 D1	90.61	395	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Williamsburg	L7 D1	17.95	108	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10

Total, Eastern Ontario system, 1,670.54; 11,119. †New rate 6 cents effective November 1, 1934. ‡Apple Hill section.

THUNDER BAY SYSTEM

Fort William	P10 D1	51.41	160	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10
Port Arthur	P2 D1	29.55	127	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	4	2	0.75	10

Total, Thunder Bay system, 80.96; 287.

MANITOULIN RURAL POWER DISTRICT

Manitoulin	FM1 D1	37.25	165	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	†7	2	0.75	10

NORTHERN ONTARIO PROPERTIES

Nipissing District																		
North Bay	Z4 D1	11.37	355	.90	1.40	1.03	1.40	1.67	1.80	2.50	3.10	3.53	4.63	5.57	6	2	0.75	10
Powassan	Z8 D1	3.25	14	1.50	2.33	1.72	2.33	2.78	3.00	4.17	5.17	5.89	7.72	9.28	6	2	0.75	10
Total, Nipissing District		14.62	369															

Total, all systems: 9,461.37. Number of Consumers, 63,840. *See footnote on page 84. †New rate 6 cents effective November 1, 1934.

CLASSIFICATION OF SERVICES FOR RURAL POWER DISTRICTS

When contracts between the consumer and the township have been executed, users of power in townships are supplied with electric service under general classes, according to the requirements and conditions of the individual consumer, as follows:

Class	Service	Class demand kilowatts	Phase	Volts	Fuse rating amperes (maximum)
1B	Hamlet Lighting	1.32	1	110	15
1C	“ “	2	1	220/110	35
2A	House Lighting	1.32	1	110	20
2B	Small Farm Service	2	1	220/110	35
3	**Light Farm Service**	**3**	**1**	**220/110**	**35**
4	Medium Farm Service	5	1	220/110	50
5	“ “ “	5	3	220/110	35
6A	Heavy Farm Service	9	1	220/110	100
6B	“ “ “	9	1 and 3	220/110	60
7A	Special Farm Service	15	1	220/110	According to load
7B	“ “ “	15	1 and 3	220/110	According to load

Class 1: Hamlet Service—Includes service to consumers (other than farm and power users) in hamlets, where four or more consumers are served from one transformer. Service is given under two sub-classes as follows:

> Class 1-B: Service to residences or stores, including use of portable appliances, and permanently installed appliances not exceeding 1,320 watts.
>
> Class 1-C: Service to residences or stores with electric range or ordinary permanently installed appliances greater than 1,320 watts. Where a combination of residence and store can be supplied from one service, the combination is billed as a single Class 1-C consumer. Special or unusual loads will be treated specially.

Class 2-A: House Lighting—Includes service to all consumers other than farm and power users that cannot be grouped as in Class 1.

Class 2B: Farm Service, Small—Includes service for lighting of farm buildings, power for miscellaneous small equipment and power for single-phase motors not exceeding 2 horsepower and electric range if motors and range are not used simultaneously, on a farm of fifty acres or less.

Class 3: Farm Service, Light—Includes service for lighting of farm buildings, power for miscellaneous small equipment and power for single-phase motors not exceeding 3 horsepower and electric range if motors and range are not used simultaneously.

Class 4: Farm Service, Medium Single-Phase—Includes service for lighting of farm buildings, power for miscellaneous small equipment and power for single-phase motors up to 5-horsepower demand and electric range if motors and range are not used simultaneously.

Class 5: Farm Service, Medium 3-Phase—Includes service for lighting of farm buildings, power for miscellaneous small equipment and power for 3-phase motors up to 5-horsepower demand and electric range if motors and range are not used simultaneously.

Class 6: Farm Service, Heavy—Includes service for lighting of farm buildings, power for miscellaneous small equipment and power for motors up to 5-horsepower demand and an electric range, or 10-horsepower demand without an electric range. Single- or three-phase service will be given at the discretion of the Hydro-Electric Power Commission of Ontario.

Class 7: Farm Service Special—Includes service for lighting of farm buildings, power for miscellaneous small equipment, power for 3-phase motors from 10- to 20-horsepower demand and electric range. Single or three-phase service will be given at the discretion of the Hydro-Electric Power Commission of Ontario.

Note: Class 2B is the service usually supplied to farms of fifty acres or less and Class 3 is the service usually supplied to larger farms. More than 90 per cent of new contracts for farm service are in one or other of these classes.

SECTION IV

HYDRAULIC ENGINEERING AND CONSTRUCTION

Mining and industrial activity in north western Ontario made it necessary for the Hydraulic department to undertake development work and to make improvements and extensions to plants at a number of points. A new power development was commenced at Rat rapids at the outlet of lake St. Joseph, the power from which is required in a mining district about twenty-five miles north of the lake.

Coincident with the development of power, several transportation routes were improved, at the request of the Department of Lands and Forests. The Root river navigation system, completed in October, 1934, enables freight to be shipped more economically than formerly from Hudson, on the Canadian National railway, to points on lake St. Joseph. The work involved the construction of three dams, three marine railways for the transport of loaded scows past the dams, channel straightening on the Root river, a standard gauge railway 3.6 miles long, and docks with freight-handling equipment at the termini of the railway.

Due to increased loads and water supply conditions, consideration has been given to the installation of an additional unit at the Ear Falls development.

The original wood-stave conduit at the Eugenia development, installed in 1914-15, was replaced during 1934. The replacement of the pipe was preceded by the construction of a test section, in which various types of end joints for wood staves were incorporated and tested. Repairs to concrete structures were made at the Cameron Falls development on the Nipigon river.

Engineering assistance was given to the Public Utilities Commission of the town of Almonte in connection with the addition of a generating unit in one of the town's power plants, and to the village of Cobden in the investigation of the failure of a portion of the dam at the local power plant.

Field investigations in connection with the proposed conservation dam on the Grand river at Waldemar were continued, and a report prepared dealing with estimates of cost. Engineering assistance was given to the Government with respect to allocating the cost among interested municipalities.

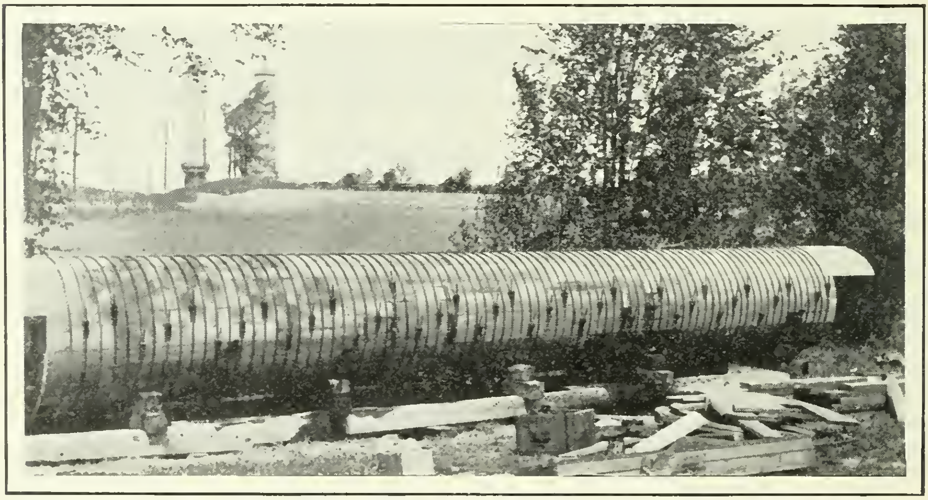
NIAGARA SYSTEM

Queenston-Chippawa Development

In April an inspection was made of the Queenston-Chippawa power canal, to observe, in so far as that is possible with the canal in service, the condition of the concrete lining and to ascertain the effect of weathering of the rock. It does not appear that any extensive repairs to the concrete or protection of the rock faces are presently necessary.

Chats Falls Development

Plant capacity tests were made at Chats falls in November, January and April when the plant's energy output was curtailed due to low flow in the Ottawa river, and again during the flood period in May when, due to reduced head, the peak capacity of the plant was decreased.



EUGENIA FALLS DEVELOPMENT
Test section of wood-stave conduit

GEORGIAN BAY SYSTEM

Eugenia Falls Development

Reference was made in the last Annual Report to the necessity of replacing wood-stave conduit No. 1 at the Eugenia development. This conduit is 3,350 feet in length, has an internal diameter of 46 inches, and was built in 1914-15. A section, 111 feet long, adjoining the headworks, has a protective envelope of concrete, and is in good condition. The remainder was replaced.

Reconstruction of the conduit commenced early in August, and was completed on October 27, 1934. The new pipe line is the same length and diameter as the former one. The staves and mud sills were creosoted, and at two places, to support the conduit, earth embankments were substituted for trestles. Gravel ballast was used on the embankment.

THUNDER BAY SYSTEM

Cameron Falls Development

Repairs to concrete structures at the Cameron Falls development on the Nipigon river, discontinued with the onset of cold weather in November, 1933, were recommenced in July, 1934, and are expected to be completed before winter.

WANAPITEI LAKE STORAGE—SUDBURY DISTRICT
Looking upstream from end of main dam; old dam in centre of view

NORTHERN ONTARIO PROPERTIES

Sudbury District

At the outlet of Wanapitei lake a survey was made to determine what means should be adopted to ensure maintenance of water supply to the power plant on the river at the low lake levels which might be experienced before the spring break-up.

At the McVittie and Coniston plants, surveys were made with a view to the reconstruction of the dams. Engineering assistance was given to the Operating department in connection with repairs to the timber crib dam at the Coniston plant. Leakage through the dam was eliminated by sheeting the upstream apron, the floors of sluiceways, and the sides and upstream faces of cribs.

Abitibi District

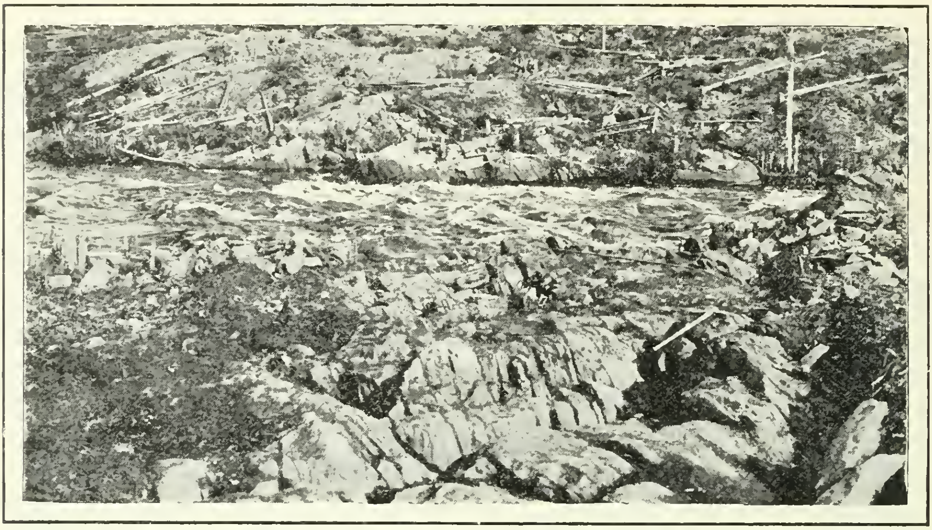
Abitibi Canyon Development

Progress was made during the year in salvaging material and clearing up the site at the Abitibi Canyon development. Improvements were also made at the operators' colony. The settlement of outstanding claims in connection with the construction of the plant has received considerable attention.

Patricia District

Ear Falls Development

Increased load on the Ear Falls plant, combined with low head due to high-water conditions on the English river during the past year, taxed the capacity of the development. The plant contains a single unit, rated at 5,000 horsepower under a head of 36 feet, which has been in continuous operation since February, 1930. The operating record has thus been satisfactory. To guarantee continuous



RAT RAPIDS DEVELOPMENT—ALBANY RIVER

A development to supply power to a mining district in Northern Ontario, Main dam site at outlet of lake St. Joseph, looking north-east

operation, as well as to meet the increased load demands, preliminary steps have been taken for the installation of a second unit.

Flow conditions on the English river required close attention during June, July and August. The river discharge was the highest on record dating from 1914.

Rat Rapids Development

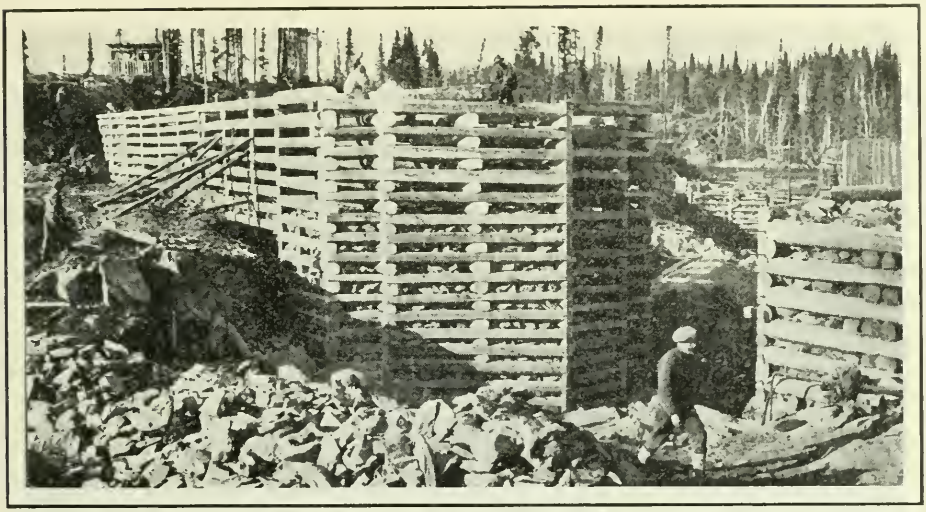
Inception of mining development in the district to the north of lake St. Joseph has created a demand for power, which will be supplied from a small development at Rat rapids at the outlet of lake St. Joseph.

The last Annual Report referred to preliminary surveys at three power sites on the Albany river, about twenty-five miles south of the properties to be served. Further investigation resulted in the selection of the site at the outlet of lake St. Joseph.

The development comprises a main dam at the Rat Rapids outlet of lake St. Joseph, a diversion dam at the Cedar Rapids outlet, and a short section of secondary dam about 200 feet south of the main dam, in which the power-house intake is incorporated.

The dams are rock-filled timber crib structures with sluiceways to provide ample discharging capacity.

The power house contains a single, horizontal unit, comprising a four-runner turbine rated at 1,200 horsepower under a 14.5 foot head, 164 r.p.m.,



RAT RAPIDS DEVELOPMENT—ALBANY RIVER

A Source of power for Northern Ontario—Wing dam and power house intake

directly connected to a horizontal generator. The turbine flume and powerhouse substructure are of concrete, the superstructure being built of timber cut locally.

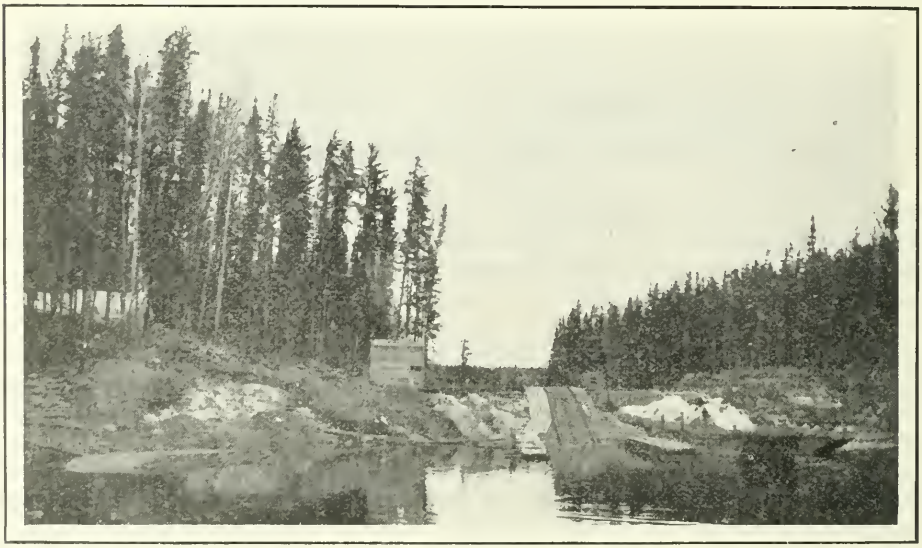
At the end of the year, the dams were approaching completion, considerable progress had been made on excavation for power house and tailrace, and a start had been made on placing concrete in the turbine chamber.

Root River Transportation System

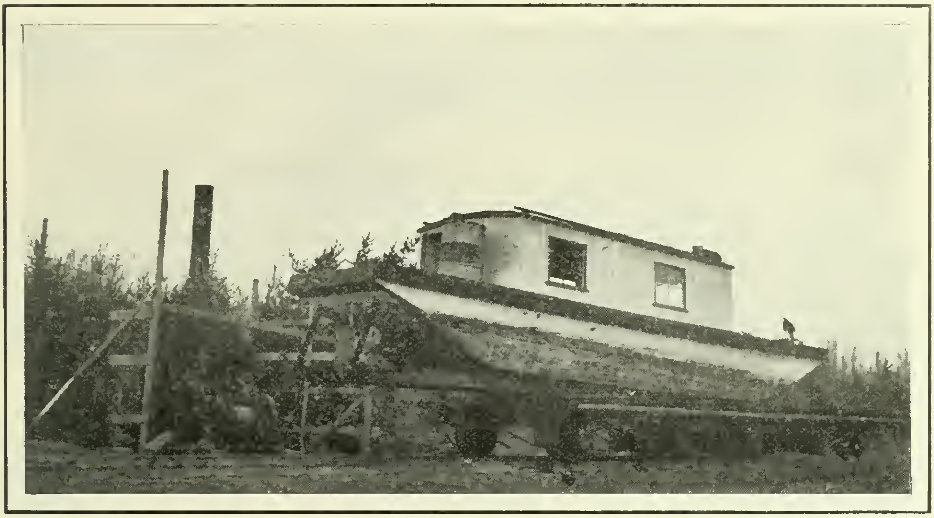
The navigation and improvement works on the Root river were devised, at the instance of the Government and mining companies, to provide transportation facilities for machinery and supplies required in mining development to the north of lake St. Joseph. Transportation of freight into the district has been by aeroplane and tractor in winter, and by aeroplane in summer. The improved route reduces greatly the labour and expense of transporting goods.

The works overcome a difference in elevation of approximately 65 feet between lac Seul and lake St. Joseph. Dams and marine railways were constructed on the Root river, and a standard gauge railway, 3.6 miles in length across the height of land, completes the scheme. Freight is transported along the Root river by scows, which are drawn up the three marine railways overcoming differences in elevation of 6, 10, and 14 feet respectively, to the southern terminus of the standard gauge railway, where it is transferred to two standard flat cars hauled by a 13-ton gasoline locomotive and conveyed along the railway to the northern terminus on lake St. Joseph. Here it is again transferred to scows for final distribution.

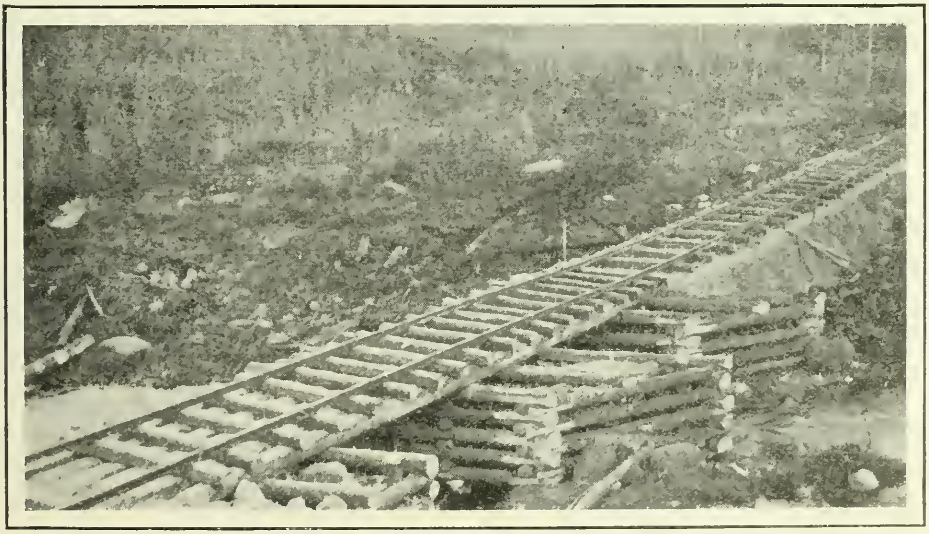
ON A TRANSPORTATION ROUTE IN NORTHERN ONTARIO
Crest of Nattaway Fall—Root River



IMPROVED TRANSPORTATION FOR NORTHERN ONTARIO
Marine railway at Lynx Fall, Root river, Overcoming difference in elevation of ten feet



IMPROVED TRANSPORTATION FOR NORTHERN ONTARIO
Root river route—Winding engine, portage car and scow



IMPROVED TRANSPORTATION FOR NORTHERN ONTARIO
Standard gauge railway connecting lac Seul and lake St. Joseph, Root river route

Construction commenced on August 8, at Nattaway portage, and ceased on October 20. The system was in use from that time until the close of navigation. A small amount of work remains to be done, the major part of which is the completion of grading, ditching and ballasting the railway.

At the request of the Department of Lands and Forests, a survey was made at Pelican falls, about five miles west of Sioux Lookout, to investigate the possibility of improving navigation at this point.

HYDRAULIC INVESTIGATIONS

Reference was made in the last Report to the assistance given to the Utilities Commission of the town of Almonte in connection with the installation of an additional generating unit in that town's hydro-electric station. The installation was completed early this year, and the generator and turbine subjected to the usual acceptance tests, which were carried out by the Commission's staff.

The reconstruction of a portion of the Temiskaming dam was of interest to the Commission on account of its effect on the flow of the Ottawa river. The dam is situated at the foot of lake Temiskaming. During the exceptionally high flood flows in the spring of 1928, due to a poor foundation, a number of piers in the Quebec section of the dam failed.

Before reconstruction commenced, the Dominion Government called a meeting of all interested parties. The Commission thus had an opportunity of studying the situation and offering suggestions on design and construction.

At the request of the municipality of Cobden, an inspection was made of the dam and power house belonging to the village, after the failure of a portion of the dam in the spring of 1934. Recommendations with regard to rehabilitation of the development were offered.

Routine work included the collection of data referring to river stages and flow in various parts of the Province, much of this being in co-operation with the Dominion Water Power and Hydrometric Bureau. Inspection of Niagara river diversion records was also made.

A survey was made of the power site at Workman falls on the Gull river near Minden, and preliminary estimates of the cost of a development were prepared.

Field investigations in connection with the proposed conservation dam at Waldemar were continued during the year, foundation conditions being investigated by means of test pits. A report was submitted to the Minister of Lands and Forests in February.

SECTION V

ELECTRICAL ENGINEERING AND CONSTRUCTION
(STATION SECTION)

NIAGARA SYSTEM

Generating and Switching Stations

Generating Stations on the Niagara River—At Queenston generating station equipment is being installed on a number of the units to improve the control of the frequency and load. A sound-proof room is being added in the station where welding and grinding required in the repair of turbine runners will be done.

In the Ontario Power plant an improved telephone and signal system was installed. The north end of the generating station, which was unoccupied, was partitioned off for a machine shop.

Transformer and Distributing Stations

Niagara District—At the Provincial Paper Limited plant at Thorold, and at the Interlake Tissue Mills Company plant at Merritton, the electric steam generating stations referred to in last years Report were placed in service in January, 1934.

The Beatty-Welland distributing station, which was destroyed by fire in August, 1933, was rebuilt on the old site and placed in service in February, 1934. A bank of three 250-kv-a. transformers was obtained from system reserve.

At Smithville distributing station, improvements were made in the metering equipment.

At Welland transformer station and at Thorold transformer station metering equipment for totalizing the 12,000-volt load was installed. New metering equipment was installed in the feeder at Ohio Brass Company's plant in Stamford township and in the feeder at Maple Leaf Milling Company's plant at Port Colborne.

To supply power to the northern portion of Jordan rural power district, a new pole-type station of 450-kv-a. capacity, known as Louth distributing station, was erected and placed in service in July. Three new 150-kv-a. transformers held in system reserve were used for the installation.

Hamilton and Dundas District—At Dundas transformer station the relays controlling the 110,000-volt line circuit-breakers were replaced with high-speed, distance, directional, phase and ground relays.

Toronto and York District—At Toronto-Strachan transformer station the installation of the improved relaying equipment reported last year, was completed.

At Toronto-Bridgman-Davenport transformer station a standby station-service bank of transformers was installed, using two 75-kv-a. transformers obtained from system reserve.

At Toronto-Wiltshire transformer station, differential relaying equipment was installed for control of the 110,000-volt bus, and improvements were made in relaying equipment for the 13,200-volt feeders.

At Toronto-Leaside transformer station, potential-indicating and synchronizing devices were installed on all three 220,000-volt circuits. This equipment was tested during the year and placed in permanent operation in October.

Ringwood distributing station was built and placed in service in January to supply power to Stouffville and a portion of Markham rural power district. A 300-kv-a. transformer was obtained from system reserve and used for this installation.

At Mount Joy, Kleinburg and Woodbridge distributing stations, graphic wattmeters were installed, and at Milton improvements were made in the metering equipment.

London District—At London transformer station, equipment for another 13,200-volt feeder was installed, also additional relays for control of the 110,000-volt lines to Woodstock transformer station.

Kitchener District—At Kitchener transformer station, additional relays were installed for control of two 110,000-volt lines to Preston transformer station.

St. Thomas District—At St. Thomas transformer station, additional ground relays were installed for control of the 110,000-volt lines to Niagara and Queenston transformer stations.

Brant District—At St. Williams distributing station and at Port Rowan, improvements were made in the controlling and metering equipment.

At the request of Paris Hydro-Electric and Water Commission engineering assistance was given and equipment was purchased and installed for an additional 2,300-volt feeder, and for grounding devices in the street-lighting feeders in Paris municipal station.

GEORGIAN BAY SYSTEM

Severn District—At Midhurst distributing station, improvements were made in the protective equipment, and at Coldwater distributing station a graphic wattmeter and a graphic reactive meter were installed and improvements were made in the other metering equipment.

Eugenia District—At Eugenia generating station the old storage-battery was replaced by a new 60-cell battery, and improvements were made in the grounding of the station and in the metering equipment.

At Owen Sound city limits a single-phase metering equipment was installed to measure the power supplied to Owen Sound rural power district.

Muskoka District—At Hanna Chute generating station the gear-driven oil-pump on the generator was replaced by a motor-driven pump.

At Falkenburg distributing station, improved protecting equipment was installed.

Bala District—At McTier distributing station a new structure was built and both the high and low-voltage equipment transferred to it from the old structure. The low-voltage distribution was changed from 2,300 to 4,000 volts and the station grounding was improved.

EASTERN ONTARIO SYSTEM

110,000-volt Transformer Stations—At Howard Smith Paper Mills Company at Cornwall the Commission erected a 20,000-kv-a. transformer station, also an electric steam-generator to supply the Company, under contract, with secondary electric power for the generation of process steam. A 20,000-kv-a., 60-cycle, three-phase, 105,000/6,600-volt, water-cooled transformer, and a 20,000-kw., 6,600-volt electric steam-generator were purchased and placed in service in August.

At Ottawa transformer station, additional telephone equipment was installed to provide proper operating facilities for the new 110,000-volt transmission line from Ottawa to Cornwall.

Central Ontario District—Marmora distributing station was rebuilt at a new location to allow widening of No. 7 highway.

At Sidney transformer station a chain-link fence was built around the 6,600-volt lightning-arresters.

At Oshawa distributing station No. 1 a sectionalizing disconnecting-switch was installed in the 44,000-volt bus.

At Hydro-Electric Power Commission pulp mill (Campbellford) the 600-volt switching equipment in the mill was overhauled. Drop-out-type fuses were installed for automatic protection on the 44,000-volt line entering the distributing station.

At Belleville switching station, directional relays were installed.

St. Lawrence District—At Cornwall transformer station, changes were made to receive power at 110,000 volts from Gatineau Power Company over a new line from Ottawa transformer station, and to supply Howard Smith Cornwall (Steam) transformer station at the same voltage. A battery and motor-generator charging-set were installed, and the oil circuit-breakers were equipped for electrical operation. Changes were made in the relaying equipment for the control of the high-voltage lines, and additional telephone equipment was installed to aid in operation. An automatic oil circuit-breaker was installed in the Maxville feeder.

At Brockville distributing station, switching equipment for a second 44,000-volt line is being installed.

At Prescott distributing station improvements were made in the relaying equipment, and a 24-volt battery and charger were installed.

Rideau District—Perth rural station was erected on the site where Perth rural metering equipment was located, and a 75-kv-a., 2,300/4,600-volt, single-phase transformer was purchased and placed in operation in July to supply power to the district at 4,600 volts instead of 2,300 volts as was done previously.

A new station known as McDonald's Corners distributing station was erected to supply single-phase power to the hamlet and nearby area. A 25-kv-a., 26,400/240-120-volt transformer was purchased for the installation.

Madawaska District—On the premises of the Phoenix Molybdenite Corporation a 550-volt metering equipment was installed to measure the power supplied to the customer.

THUNDER BAY SYSTEM

Generating Stations—At Cameron Falls generating station a Micromax recorder was installed to record the total load of the Thunder Bay system.

Transformer Stations—At Port Arthur transformer station improvements were made in the relaying system to control the 110,000-volt lines.

At Nipigon Corporation mill a graphic wattmeter was installed.

The Provincial Paper (steam) transformer station referred to last year was completed and placed in service in November.

At the request of Little Long Lac Gold Mines Limited, the Commission assisted in the design and installation of a 1,500-kv-a. step-down station to distribute the power supplied to the mining company from Cameron Falls transformer station. A bank of three 500-kv-a., 60-cycle, 44,000/2,400-volt transformers, and a bank of three 150-kv-a., 2,300/550-volt transformers were purchased for the installation and the station was placed in service in September. The Commission's metering equipment to measure the Company's load was installed in the Company's station.

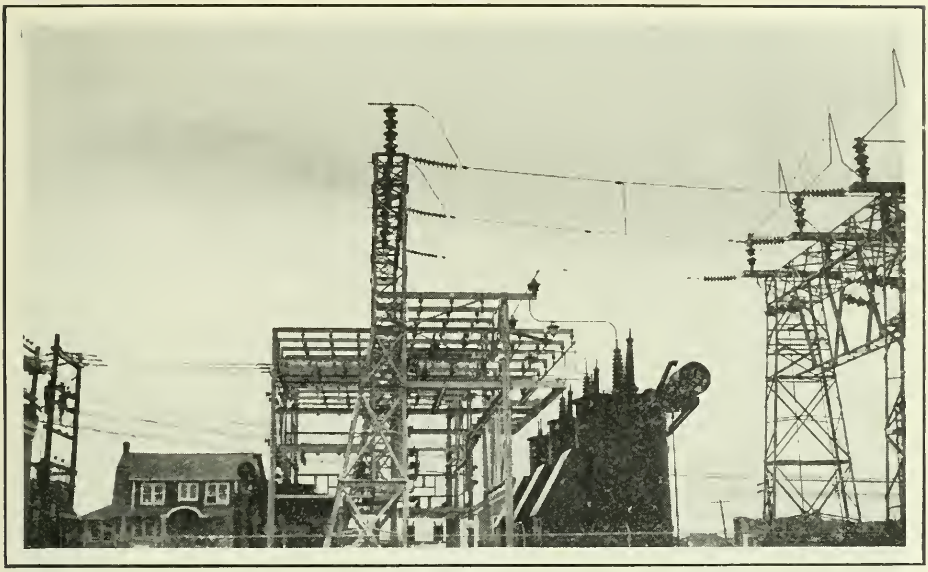
NORTHERN ONTARIO PROPERTIES

Nipissing District—At North Bay distributing station No. 1 the capacity was increased by the installation of a 750-kv-a., three-phase transformer obtained from Georgian Bay system reserve. The indoor lightning-arresters were replaced by outdoor-type, the switching equipment was re-arranged, alterations were made to the station lighting, a 24-volt battery and trickle-charger were installed and instrument-transformers for totalizing the load added.

At Callander (Canadian Timber Company) distributing station three 10-kv-a. transformers were connected into the circuit to reduce the customer's voltage to 550-volts.

Sudbury District—At Stinson generating station, metering equipment was installed on the 22,000-volt feeder supplying power to Falconbridge Nickel Company.

Abitibi District—At Abitibi Canyon development two 48,500-kv-a. generating units are in service. During the year partial equipment was installed in the station for a third 110,000-volt transmission circuit. A 1,500-kv-a., 13,200/575-volt, three-phase, indoor-type transformer was transferred from Niagara system reserve and installed in the generating station to supply 575-volt power for the operation of the sluice-gates and the heating and lighting of the building. A similar 1,500-kv-a. transformer transferred from Niagara system was converted to outdoor type and installed outdoors in the operators' colony, where it supplies 575-volt power for heating and lighting the houses in the vicinity of the development.

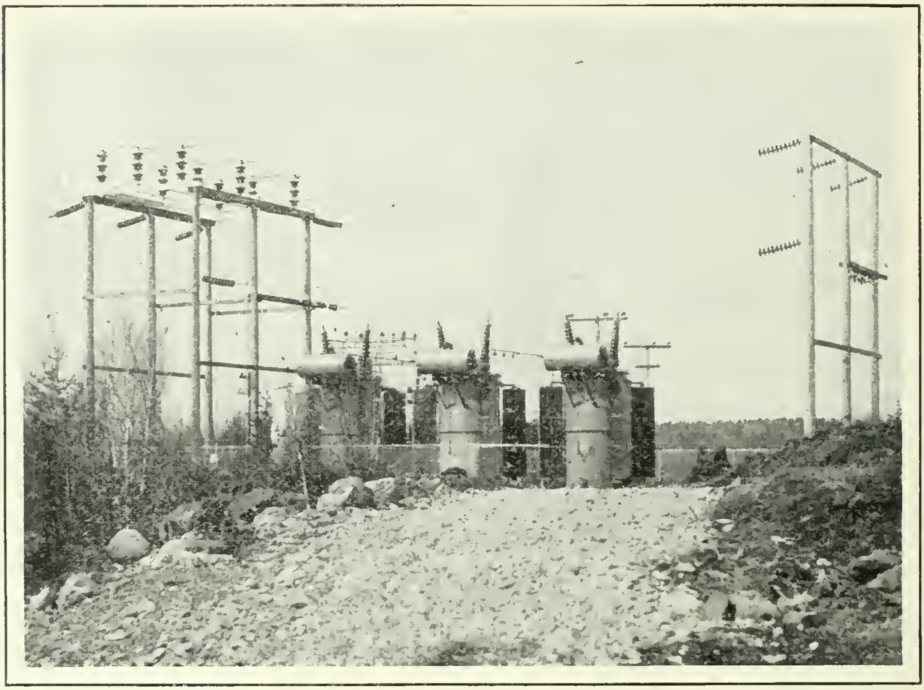


KIRKLAND LAKE TRANSFORMER STATION—NORTHERN ONTARIO PROPERTIES

Supplying power to the Canada Northern Power Corporation for use in the gold mining district of Kirkland Lake. Three 9,500-kv-a. transformers, 121,000/13,200 volts

At Kirkland Lake the Commission erected a transformer station to supply, under contract, power to Canada Northern Power Corporation. Arrangements were made for a temporary connection direct to the high-voltage bus at the customer's Kirkland Lake station, and power was delivered in February, 1934. Construction of the permanent station to supply power to the Corporation and other customers was commenced in February and the station was placed in service on July 26, 1934. Power is received at a nominal voltage of 110,000 volts from Abitibi Canyon development, 153-miles distant. The present installation provides for one incoming 110,000-volt circuit from the development, an outgoing 110,000-volt circuit to Matachewan transformer station and three low-voltage feeders. The equipment consists of one bank of three 9,500-kv-a., single-phase, water-cooled transformers, and one 15,000-kv-a. (circuit-capacity), 13,200-volt, under-load voltage-regulating equipment. The transformers were manufactured for Ontario Power Service Corporation, and are used at this station to step the voltage down to a nominal bus voltage of 13,200. The regulating equipment will reduce the bus voltage a maximum of 15 per cent in eight equal steps to meet the voltage requirements of customers.

Canada Northern Power Corporation and Bidgood-Kirkland Gold Mines Limited are supplied from the regulated-voltage bus through separate oil circuit-breakers. A feeder is provided from the unregulated bus whereby in case of emergency 13,200 volt power may be supplied through fuses over the 110,000-volt circuit to Matachewan transformer station. No 110,000-volt, oil circuit-breakers have been installed. Air-break disconnecting-switches are provided between the incoming line and the line to Matachewan, also between the incoming line and the transformer bank. In case of an electrical failure in the station, a single-phase switch automatically grounds one phase of the high-voltage bus and causes the line circuit-breaker at Canyon to open. The



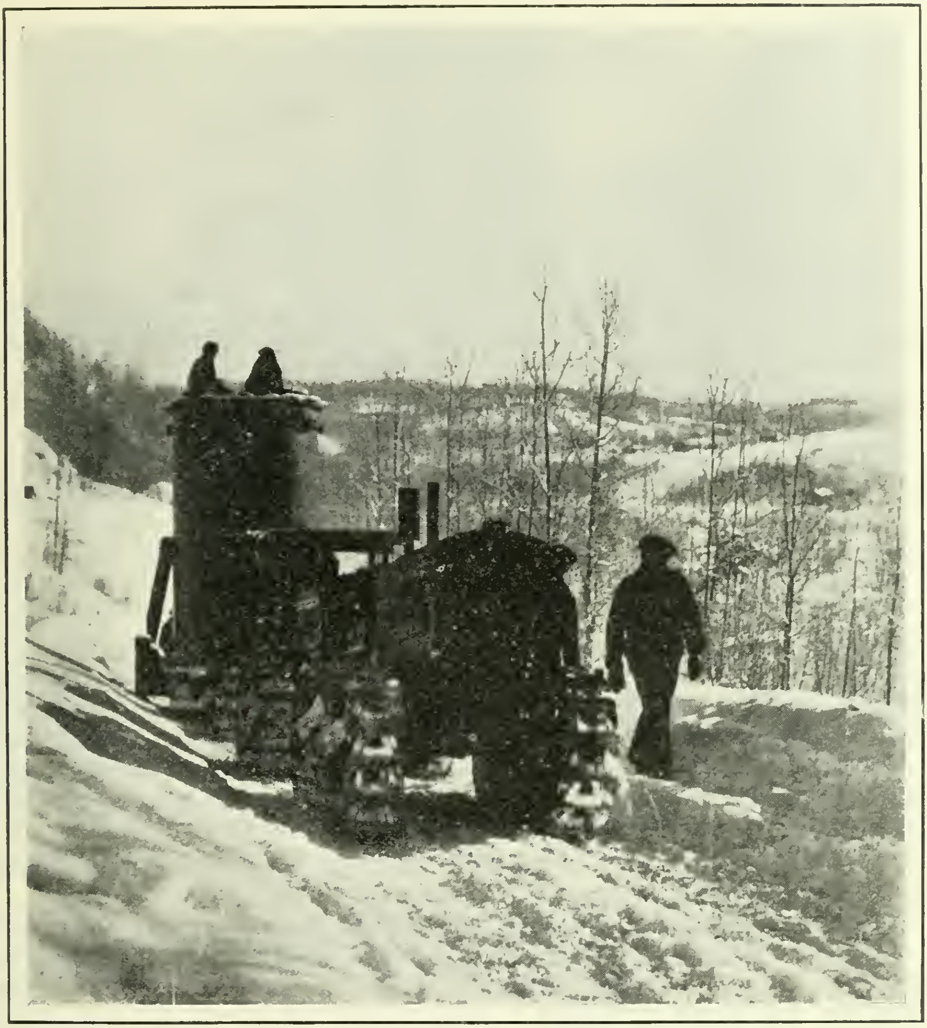
MATACHEWAN TRANSFORMER STATION—NORTHERN ONTARIO PROPERTIES

Supplying power to gold mining companies in the Matachewan area
Three 1,500-kv-a. transformers, 121,000/27, 720-13,860 volts

transformer air-break disconnecting-switch then opens to isolate the fault and at the same time clears the automatically grounded phase. While the station is outdoor-type, a one-storey building was erected to house the water-pumps and oil-filters. A pond with sprays is provided to cool the water circulating in the transformers and a connection is made to the township water-main. The meters, relays, and remote-control equipment are located in Canada Northern Power Corporation's station.

Metering equipment was installed in Bidgood-Kirkland Gold Mines Limited station to measure the power supplied this customer on the 12,000-volt bus.

Matachewan transformer station was erected in Powell township to distribute power to customers in the Matachewan area. A bank of three 1,500-kv-a., 121,000/27,720-13,860-volt transformers was purchased for the installation and is connected to the transmission line from Kirkland Lake transformer station through an air-break disconnecting-switch. One 26,400-volt feeder supplies power through an oil circuit-breaker to Young-Davidson mine of Hollinger Consolidated Gold Mines Limited. Matachewan Consolidated Gold Mines Limited is supplied with power over a 26,400-volt line tapped from the same feeder. Metering equipment was installed in each customer's station on the 550-volt side of the transformers to measure the power supplied for the respective loads. An emergency connection is provided whereby 13,200-volt power may be supplied from Kirkland Lake transformer station over the 110,000-volt line. The station was placed in service in April, the transformers having been hauled during the winter 26 miles from the railway terminal at Elk Lake to



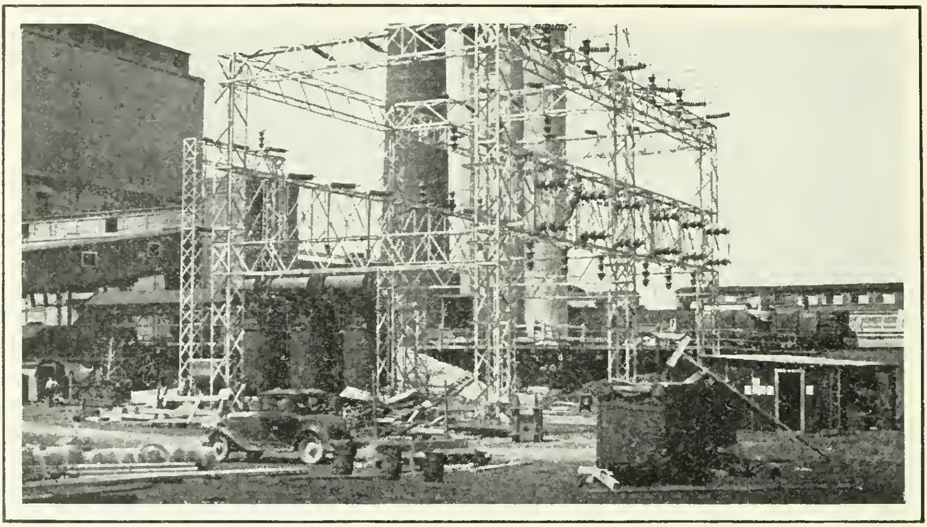
WINTER TRANSPORTATION IN NORTHERN ONTARIO

A tractor pulling 1,500-kv-a. transformer to Matachewan Transformer Station ascending Moyneur's Hill, March, 1934. (See also Frontispiece)

the site. They were transported on special skids, and in order to cross bridges along the route, it was necessary to reduce the weight of the transformers by replacing the oil in the tanks with nitrogen gas. (see frontispiece)

At Smooth Rock Falls a transformer station with electric steam-generators was erected at the plant of the Abitibi Power and Paper Company to supply the Company, under contract, with secondary electric power to generate steam. Two 25,000-kw. electric steam-generators were purchased for the installation and a bank of three 13,000-kv-a., 121,000/6, 600-volt, water-cooled transformers, which were built for Ontario Power Service Corporation, was used to supply the necessary 6,600-volt power. The station was completed and placed in service on August 1, 1934.

At Hunta switching station, where steel structures had already been provided by Ontario Power Service Corporation, thirteen 110,000-volt dis-



TRANSFORMER STATION AT SMOOTH ROCK FALLS—NORTHERN ONTARIO PROPERTIES
Supplying power for generating process steam utilized in the manufacture of pulp and paper.
Three 13,000-kv-a. transformers, 121,000/6,600 volts

connecting-switches were installed in order to provide switching facilities between the four circuits from Abitibi Canyon development, and the two circuits to Copper Cliff and two circuits to Iroquois Falls, Kirkland Lake and Matachewan transformer stations. Eight of the disconnecting-switches were purchased by Ontario Power Service Corporation while the remainder were purchased by the Commission direct from the manufacturer. A chain-link fence was built around the structure.

Patricia District—At Ear Falls generating station an automatic voltage-regulator and pilot exciter were purchased and installed.

St. Joseph District—For Rat Rapids development on the Albany river, a design for the superstructure and electrical equipment was made and the equipment secured for the installation. The generator was obtained from Calabogie development where it was in storage, and three 333-kv-a. transformers were purchased for step-up to 22,000-volts to supply the transmission line to Central Patricia Gold Mines Limited and Pickle Crow Gold Mines Limited. The equipment is now being transported to the site.

ADMINISTRATION BUILDING

Drawings and specifications for an eighteen-storey Administration building, incorporating structural-steel frame, also an alternative design for a reinforced-concrete frame were issued and request for tenders advertised on February 1, 1934.

Tenders were received on March 7, and a contract with Anglin-Norcross Ontario Limited was executed on April 30, 1934, incorporating the reinforced-concrete frame. This contract was subsequently amended to cover only a six-storey building and penthouse with provision for future extension of the building as originally planned. At the end of the fiscal year the excavation was complete, the foundations were installed and the structural work was proceeding.

SECTION VI

TRANSMISSION, DISTRIBUTION AND RURAL SYSTEMS

TRANSMISSION SYSTEMS

The volume of transmission work materially increased over 1933, important additions being made in serving new steam and mining loads.

An important extension to high-voltage lines in the Eastern Ontario system was made by the construction of a line between Ottawa and Cornwall to meet industrial demands at Cornwall. These loads will be supplied from the Gatineau, 60-cycle contract.

The greatest activity in line construction was in connection with the Northern Ontario Properties. During the winter of 1933-34, in addition to some lower voltage lines, 96.34 miles of 132,000-volt lines were constructed. The surveys and the major part of the construction of these lines were carried on during severe weather conditions, heavy snowfall and temperature readings as low as 68 degrees below zero, being reported. Ontario Power Service Corporation lines taken over in 1933 were completed and placed in service.

Rehabilitations of lower voltage lines fifteen or more years old were continued. There were over seventy specific jobs of this type, the average expenditure per job being comparatively small.

As a result of the foregoing extensions, the capital invested in transmission lines and equipment was increased during the year by approximately $900,000.

The following synopsis shows, by systems, the work completed during the year. At the back of the Report a map is included showing all transmission lines and stations. Summary tables respecting transmission lines will be found in Appendix II.

NIAGARA SYSTEM

High-Voltage Lines

Between Fonthill junction and Pelham junction, 2.52 miles of inactive 190,000-circular-mil copper circuit were removed from the 90,000-volt line to provide material for low-tension revision work in the vicinity of Thorold.

Between junctions on the former Toronto Power 60,000-volt line and Port Colborne junction, a total distance of 19.17 miles, the existing 60,000-volt, steel-tower line was reinforced by the addition of tapered armour rods to the conductors, festoons to the ground cable and special type lock nuts to the towers.

26,400-Volt Lines

Rehabilitation was completed of the 4,000-volt line between Mount Joy and Ringwood distributing stations to include a 26,400-volt circuit, pole-top construction.

Between London transformer station and Lucan distributing station, a distance of 21.37 miles, one 26,400-volt circuit was established by reinsulating and restringing one circuit on the 13,200-volt line between London and Broughdale, and replacing the double-circuit construction between Broughdale and Lucan with a single 3/0 a.c.s-r.* circuit.

At Ayr junction and Paris municipal station new swivel-type air-break switches were erected. The one at Paris municipal station replaced an old disconnecting switch.

In the Stratford, Brant, Kent and St. Clair districts, reinforcements were made to 26,400-volt lines.

Other Lines

Between Lundys Lane and Holland road, near Niagara Falls, 2.60 miles of 12,000-volt line was diverted due to revision of the highway.

On the single-circuit line between Whirlpool junction and Queenston quarries, 1.10 miles of No. 4 copper conductor was replaced by No. 2 a.c.s-r.

Between a junction point on the Chippawa 12,000-volt line and the Norton Company, a distance of 600 feet, the old single-circuit line was rebuilt with two circuits of 190,000 circular-mill copper conductors. A switching structure at this junction became unnecessary and was removed.

Between Ontario Power transformer station and Chippawa junction, 2.43 miles, the circuits of an old 12,000-volt line were removed leaving the poles to carry H.E.P.C. telephone circuits and attachments of the Stamford rural power district.

Relocation of 1,800 feet of 13,200-volt line was completed to clear construction operations at the filtration plant near Leaside transformer station.

Between Aylmer junction and Port Stanley, 10.03 miles, the line capacity was increased by replacing the single-circuit of No. 2, a.c.s-r. with 1/0 a.c.s-r.

Increased line capacity, made necessary by new steam loads in the Thorold district, was made available by rebuilding the existing 12,000-volt line between Thorold transformer station and a point near the Provincial Paper Co., and by extending a new single-circuit line from this point to the Interlake Tissue Company. The rebuilt portion, 1.11 miles, consists of one circuit of 477,000 circular-mil a.c.s-r. and one circuit of 336,400 circular-mil a.c.s-r., the remainder 0.48 of a mile, consists of a single-circuit of 336,400 circular-mil a.c.s-r.

Line facilities to St. Catharines were improved by revisions made to two 12,000-volt lines between Thorold transformer station and Merritton switching station. Portions of 115,000 circular-mil copper conductor were replaced by 190,000 circular-mil copper on the single-circuit line, and the circuits of 173,000 circular-mil aluminum conductor on the double-circuit line were paralleled giving, in effect, two single-circuit lines having the capacity of 190,000 circular-mil copper, fed directly from Thorold transformer station. The work also

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*a.c.s-r—Aluminum cable, steel-reinforced

TRANSMISSION LINES—NORTHERN ONTARIO PROPERTIES

Wood-pole, 132,000-volt transmission line near Bourkes on the line between Iroquois Falls and Kirkland Lake

included the replacement of all defective cross arms and insulators, and the complete revision of the old switching station at Merritton.

A portion of 12,000-volt line between Canada Steel junction and Empire Cotton Mills in the Welland district was removed from private property to city streets.

Reinforcement of 13,200-volt lines was made in the Woodstock and Cooksville districts.

Overhead transmission line crossings of railways and communication companies' works were reinforced to conform to regulations of the Board of Railway Commissioners of Canada in the Woodstock, St. Thomas, Brant, Dundas and York districts. This work involved the overhauling of crossings which were generally fifteen or more years old.

GEORGIAN BAY SYSTEM

Severn District

Improvement of service to power customers on the 22,000-volt line between Waubaushene switching station and Midland was attained by the revisions of circuits on two pole lines between Waubaushene switching station and Tiffin junction. One circuit of 2/0 aluminum conductor between Waubaushene switching station and the Wye river was removed from the double-circuit line, the remaining circuit 9.64 miles was converted to pole-top construction. A further portion, 1.76 miles, was relocated and rebuilt to parallel the other single-circuit, wood-pole line, and the two lines extended through to the Aberdeen tap. This work included the rearrangement of switching to co-ordinate the new arrangement of lines, also diversions of the remaining portions in conformity with highway revisions.

Eugenia District

Railway and telephone crossings were revised and reinforced throughout this district in accordance with the Board of Railway Commissioners' specifications. Some pole-butt treatment, replacement of defective insulators and additional guys were required.

EASTERN ONTARIO SYSTEM

110,000-Volt Lines

Between Ottawa junction and Cornwall transformer station, a distance of 54.14 miles, a single-circuit, 110,000-volt steel-tower line, including a telephone circuit, was constructed. The steel towers are of similar design to those of the Smiths Falls-Kingston line. Conductors are 4/0 a.c.s-r. in flat configuration with one 5/16-inch, galvanized, crucible-steel, ground cable. At the Ottawa end a circuit was added to the existing steel-tower portion of the 110,000-volt line between Ottawa junction and Smiths Falls, an additional length of 0.68 of a mile. Particular attention was paid to obtaining a low ground resistance. Towers showing a resistance to ground in excess of 10 ohms were equipped with a ground network of copper conductors buried 18 inches.

Between Cornwall transformer station and Howard Smith Cornwall (steam) transformer station, construction of 2.64 miles of 110,000-volt, twin-pole line was completed. This line has 3/0 a.c.s-r. conductors and one ¼-inch galvanized-steel ground cable.

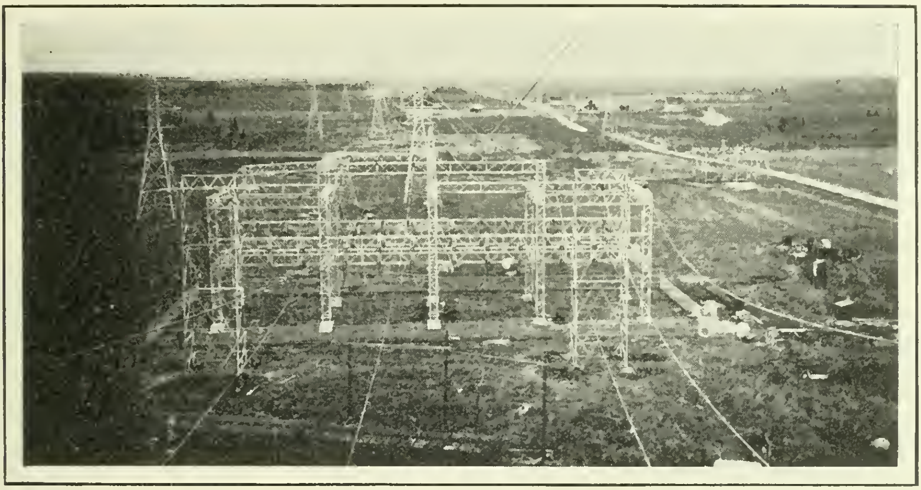
These lines were installed to meet increased 60-cycle power requirements in the St. Lawrence district.

Tapered armour rods were installed on 110,000-volt line conductors between Smiths Falls and Kingston, 49.63 miles.

Central District

Transpositions were rearranged on the 44,000-volt line between Norwood and Auburn switching stations, 17.89 miles, in order to co-ordinate this power line with paralleling lines of a telephone company.

Equipment on the Deseronto junction structures was lowered and rearranged and a new set of disconnecting switches installed.



TRANSMISSION LINES—NORTHERN ONTARIO PROPERTIES
Hunta switching structure, showing incoming 132,000-volt lines

Power line crossings of railway and telephone lines were reinforced in accordance with specifications of the Board of Railway Commissioners of Canada.

St. Lawrence District

Between Cornwall transformer station and Alexandria, 20.65 miles, dead-end clamps and defective insulators were replaced and tapered armour rods were installed on the No. 2 a.c.s-r. conductor.

THUNDER BAY SYSTEM

The 110,000-volt line between Port Arthur transformer station and the Thunder Bay Paper Company was extended 1.6 miles to the Provincial Paper Company. The new line, which was built to supply a new steam load, is twin-pole construction and has 336,400 circular-mil a.c.s-r. conductors.

NORTHERN ONTARIO PROPERTIES

132,000-Volt Lines

Between Iroquois Falls junction and Kirkland Lake transformer station, 57.30 miles, a wood-pole line was completed. In general, the design of this line is suspension-insulated, single-pole, wish-bone type and carries 3/0 a.c.s-r. for the northern 28.42 miles and 3/0 copper conductor for 28.14 miles of the southern half. Ground cable of ¼″ galvanized-steel and a telephone circuit are included.

Between Kirkland Lake transformer station and Matachewan transformer station, 39.04 miles, a similar line was constructed, the conductors in this case being 2/0 copper cable.

At the Kirkland Lake end, the above two lines are brought in on six double-circuit, steel-towers, carrying 203,200 circular-mil a.c.s-r. conductors, a distance of 0.74 of a mile. These lines were built to meet demands for power by mining companies in the district.

Between Hunta switching station and Smooth Rock transformer station. the double-circuit, steel-tower line, recently acquired by the Commission, was completed and placed in service by the erection of one double-circuit, steel-tower and two spans of 4/0 a.c.s-r. conductors and ground cable at the Smooth Rock end.

Other Lines

Between Matachewan transformer station and Matachewan Consolidated Gold Mines, 0.7 of a mile, a single-circuit, 26,400-volt, 2/0 copper conductor, wood-pole line was completed. A similar line, 0.16 of a mile, was built between Matachewan transformer station and the Young Davidson mill.

Between Kirkland Lake transformer station and Bidgood-Kirkland Gold Mine, five miles of 12,000-volt, single-circuit, No. 4 copper conductor, wood-pole line was constructed.

The 33,000-volt line between Island Falls generating station and Abitibi Canyon generating station, 29.82 miles long, which was used for construction purposes at the Canyon, was dismantled.

TELEPHONE LINES—ALL SYSTEMS

Between Grenadier pond and Strachan avenue substation, in Toronto, 3.2 miles, a double-circuit, telephone line was relocated and restrung with new copper conductor on leased poles.

Between Allanburg and Dundas, Woodstock and London, London and St. Thomas, sections of telephone pole lines were rebuilt to provide joint use with rural power circuits. A section of the Guelph to Preston telephone line was re-routed in the vicinity of Hespeler.

Between Allanburg junction and DeCew Falls generating station, a distance of 4.75 miles, existing telephone lines and equipment were revised, and an additional copper circuit to improve interconnecting telephone facilities with the various Niagara system operating centres, was erected.

The telephone circuit between Ottawa transformer station and the Gatineau Power Company transformer station at Val Tetreau was relocated and rebuilt over a shorter route for a distance of 3.1 miles.

Additional telephone lines and equipment were installed at Ottawa, Cornwall and Howard Smith (steam) transformer stations in order to provide facilities for additional telephone circuits between these points.

To improve communication between Kingston and Ottawa, telephone line revisions were carried out between Smiths Falls and Ottawa, and additional equipment installed and line revisions made at Frontenac transformer station in Kingston.

In the Abitibi district connection was established with the Northern Ontario Power Company by construction of a single-circuit telephone line between Schumacher and Timmins, a distance of 2.5 miles.

Telephone equipment was installed at Hunta, Kirkland Lake and Matachewan.

DISTRIBUTION LINES AND SYSTEMS

In Appendix III is shown in tabular form a summary of the work carried on during the year by the Distribution section of the Electrical Engineering department.

In addition to locating and supervising the construction of rural lines in the various rural power districts, the following special work was carried out.

Ground Terminals on Rural Lines, Insulator Ties, etc.

The ground terminals on rural lines were improved in 165 rural power districts. In twenty-five districts, representing 1,265 ground terminals, no further improvement was required.

Specifications for the necessary improvement were issued in 83 of the remaining 140 rural power districts, in which there are approximately 18,000 ground terminals. In the above 165 rural power districts, more than 17,000 grounds now meet the requirements for standard resistance of 25 ohms or less. The periodic tests on the resistance of ground terminals at the four test stations, installed near Toronto in July 1932, were resumed during the Winter. These four test stations were installed in different classes of soil, namely sand, gravel, clay, and shale rock. At each of these stations, twelve different terminals were installed, including driven rods and pipe and buried strip or mesh. Certain of the terminals were treated with various salts.

Since the Winter was unusually severe and the early Summer was especially hot and dry, much valuable information was obtained regarding the effect of frost and of excessive drought on ground terminals.

The results, covering the complete test period from July, 1932, to May, 1934, on 114 test terminals have been tabulated and the information is now available and is expected to prove valuable in connection with grounding problems.

Extensive tests were made on various types of ties for insulators, some 500 ties in all being tried. As a result, the standards for tying conductors on rural lines have been revised to a more efficient basis. Tests were also made to ascertain the best method of dead-ending conductors.

Assistance was given the laboratory in determining the weatherproofness of various types of lightning arresters. While certain of the older types showed a weakness in this regard, similar to that experienced in the field, the tests indicated that newer developments have to a large extent overcome this defect.

A field test was also conducted on open type drop-out fuse switches on heavy currents. The data collected are of great value, both in the selection of suitable switches for rural line work and to the manufacturer.

The improvement in voltage in some of the districts where the source of supply was a considerable distance from the consumers, was continued by the installation of automatic booster transformers.

These boosters automatically maintain satisfactory voltage during periods of heavy load. The booster installation was found to be particularly effective in districts where there is a heavy summer resort load for part of the year.

Radio Interference and Flashover Tests, Highway Lighting, etc.

Assistance was given to the Testing and Research laboratories in conducting tests to determine the voltage at which radio interference commences, and also the wet and dry flashover point of all types of insulators and fuse cutouts used on rural lines. In all about 100 pieces of equipment were thus tested.

In response to an increasing interest in highway lighting, estimates have been prepared for the lighting of experimental sections of one of the main Provincial Highways.

A considerable amount of re-location of lines was made necessary by the activity of the Department of Highways in widening and straightening several roads throughout the Province.

A paper was prepared on "Insulator Ties" and read before the A.M.E.U. Convention at Ottawa. This paper was well received and requests for additional copies have been received from such distant points as South Africa, South America and Mexico.

DISTRIBUTION RURAL LINE CONSTRUCTION

During the year ended October 31st, 1934, in addition to a large number of short line extensions to new consumers, the following work was carried on in rural power districts.

NIAGARA SYSTEM

Amherstburg R.P.D.—N15D3—During the year progress was made in changing the existing single-phase line on the River Front road south of Amherstburg to three-phase. The work was held up due to widening of the highway at this point. One section of the line is arranged for joint use with the Bell Telephone Company.

Aylmer R.P.D.—N11D2—Obsolete switches and arresters were replaced by new ones.

Bothwell R.P.D.—N14D10—Improvements were made on the line formerly known as the Glencoe-Dominion Petroleum Company's line but now included in the capital investment of this rural power district. The neutral was lowered and the pole phase wire mounted on a pole top pin to provide greater clearance of conductors and minimize interruptions by means of the triangular type of construction.

Exeter R.P.D.—N4D6—In order to provide better regulation, the No. 4 aluminum conductors on the rural feeder between Dashwood and Grand Bend were replaced with No. 2 copper conductors for a distance of 7.25 miles. At the same time changes were made in the pole line, new anchors were installed and conductors moved to provide better clearance. The work was completed June 10, 1934.

Haldimand R.P.D.—N2D8—Approximately nine miles of single-phase rural line was constructed to serve rural consumers in the vicinity of Nantichoke.

Jordan R.P.D.—N44D2—In order to improve voltage conditions, conductors were increased in size and 4,000/2,300-volt lines were installed to tie in the existing distribution system with the Louth distributing station.

Markham R.P.D.—N3D1—In order to provide better voltage conditions, an additional primary conductor was strung on existing poles for five miles from Ringwood to Musselmans lake, changing the single-phase grounded line to 4,000-volt three-phase ungrounded, and the secondary circuits in the summer resort area at Musselmans lake were increased.

The distribution system in the village of Unionville was re-built by erecting greatly increased secondary conductors, adding new transformers and re-locating others to better advantage for changing load conditions. The street lighting control wire in the village was re-arranged to conform with standard construction.

Preston R.P.D.—N6D1—On eleven miles of rural line from Breslau to Doon, a large percentage of the poles were replaced or stubbed and old cross-arms and insulators renewed.

Ridgetown R.P.D.—N14D2—In order to eliminate constant interruptions due to old type transformer cutouts new open type cutouts were installed.

St. Thomas R.P.D.—N11D1—Obsolete switches and arresters were replaced by new equipment.

Saltfleet R.P.D.—N17D1—Extensive changes were made to allow for road widening on Barton Street. The distribution networks in the subdivisions of Goodwin Park, Rosedale, Poplar Park, Highway Gardens and Glovers Side Road were rebuilt using heavier conductors to provide more adequate service for increased loads.

Scarboro R.P.D.—N3D2—In order to improve service to the Kingston road summer resort section, the existing single-phase and two-phase rural lines in the Frenchman bay and Fairport beach areas were converted to three-phase lines by the addition of primary conductors totalling 3¼ miles of line.

Simcoe R.P.D.—N12D2—To supply a 40-horsepower load at the Simcoe Wool Stock Company, a single-phase rural line feeding out of Simcoe distributing station was converted to three-phase with heavier conductors.

Wallaceburg R.P.D.—N14D13—More than 100 poles had to be relocated due to widening and straightening of the Blue Water highway on the St. Clair river road, north of Wallaceburg. In the districts of Brigden and Sarnia, similar improvements carried on by the Provincial Highways Department necessitated extensive changes in pole locations. Pole top pins were erected for the center phase to provide better clearance.

Walsingham R.P.D.—N12D7—During the year a 4,600-volt grounded line, ten miles in length was constructed to serve consumers in the Township of Houghton and South Walsingham. At the same time, the existing pole top pins were removed on two miles of single-phase line and crossarms were erected with heavier conductors. All the existing 2,300-volt transformers, arresters and cutouts west from Port Rowan were replaced by 4,600-volt equipment and a 37.5-kv-a. 4,600/2,300-volt, step-up transformer was erected on the rural line where it tapped off the Port Rowan feeder to step up the voltage of all lines feeding west from Port Rowan.

There were also some changes made in the existing rural line from St. Williams distributing station to Turkey Point. On the section from St. Williams to the junction of the Normandale tap, a distance of 5.5 miles ,two additional phase wires were erected and from the Normandale tap to Turkey Point, a distance of 0.75 of a mile, one additional phase wire was erected. This work was done to improve voltage conditions at Turkey Point and was completed June 28, 1934. Ten miles of new line was constructed in the district to serve new consumers.

Welland R.P.D.—N1D5—A considerable amount of re-building was carried on and the size of conductors increased in the vicinity of Port Robinson and Welland South.

Woodbridge R.P.D.—**N16D1**—The distribution system secondary circuits were completely rehabilitated in the village of Nobleton.

The rural three-phase line from Woodbridge to Maple was re-built for a distance of 8.5 miles by replacing the No. 6 copper primaries with No. 1/0 copper and by replacing the existing iron neutral with a No. 2 copper neutral.

The secondary system in the village of Maple was re-constructed using heavier conductors and additional transformers. Sectionalizing switches were also erected at the village limits.

Woodstock R.P.D.—**N10D2**—In order to supply a power load of 25 horsepower at Hickson, the existing single-phase 2,300-volt grounded line, 6.80 miles in length, between Woodstock and Hickson was converted into a three-phase 4,000-volt ungrounded line by the addition of another conductor. The line was put in service on June 7, 1934.

GEORGIAN BAY SYSTEM

Sparrow Lake R.P.D.—**W1D1**—Extensions of existing rural lines were made to serve summer consumers located in the Sparrow lake summer resort area. Twenty-one sectionalizing switches were erected to replace obsolete switches or provide new means of sectionalizing various sections of the district.

Wasaga Beach R.P.D.—**S10D1**—The summer load at Wasaga Beach increased to such an extent that it was found necessary to replace the No. 6 copper conductors on eleven miles of three-phase, 8,000/4,600-volt line with No. 1/0 copper.

The new circuit from Stayner sub-station to Wasaga Beach was put in service June 11, 1934.

Rural Cable Installations

Several submarine cable extensions were made to various islands in the Muskoka lakes to provide service to summer homes as follows:

Bala R.P.D.—**GB13D1**—Five cables totalling 1.5 miles to the Mazangah group. Three cables totalling 0.66 of a mile to Hamills Point, Charity and Hope Islands.

Beaumaris R.P.D.—**M7D1**—Three cables totalling 0.75 of a mile to Keewaydin, Silverwoods and Ellsworth Islands. One cable 2,350 feet to Grand Island.

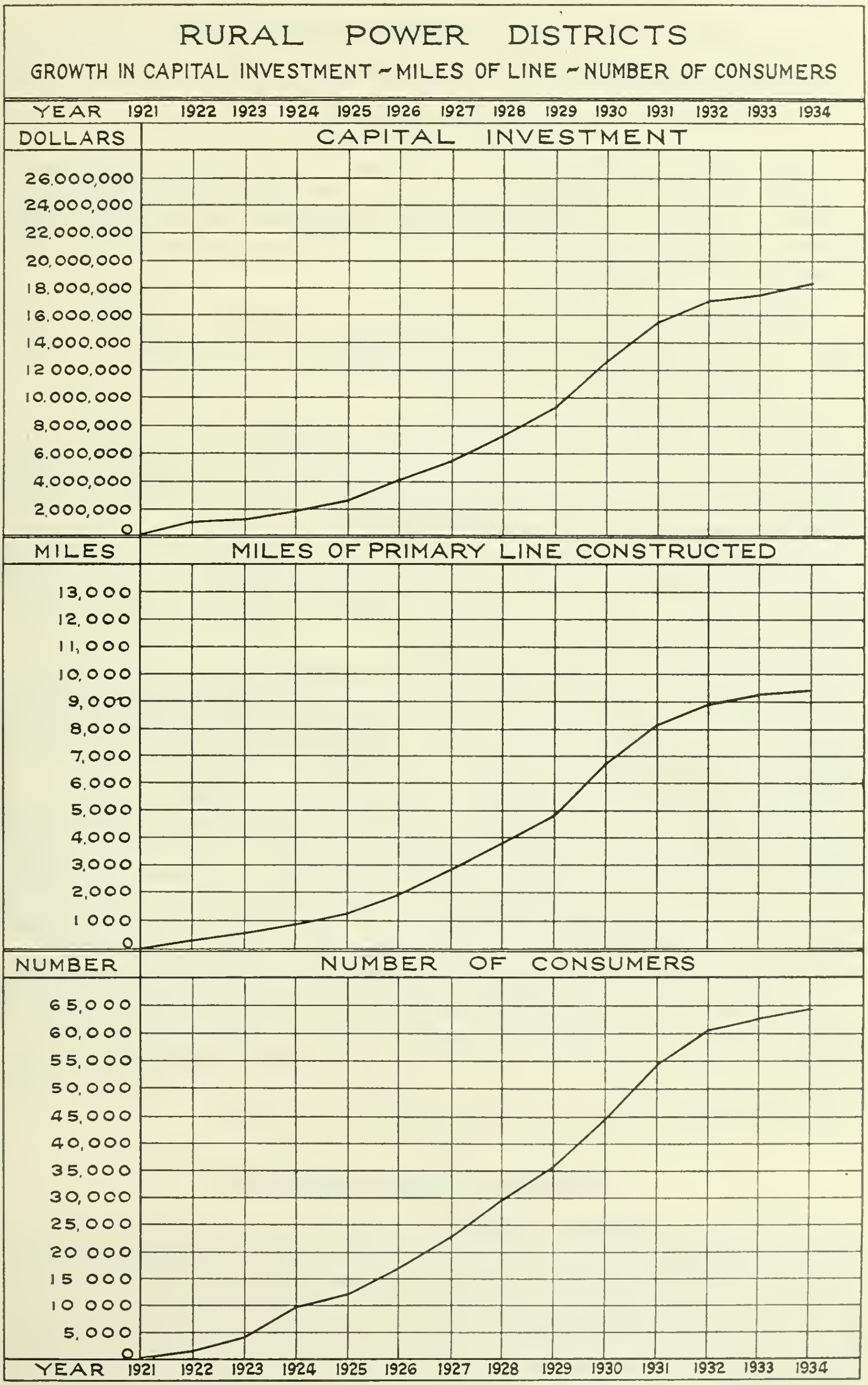
Utterson R.P.D.—**M8D1**—One cable 2,250 feet to Wigwassan Lodge.

These thirteen cable installations were all laid and put in service during the summer of 1934.

EASTERN ONTARIO SYSTEM

Fenelon Falls R.P.D.—**C30D1**—In order to supply power to the north shore of Sturgeon lake, opposite Thurstonia Park, a submarine cable 3,600 feet in length was laid across the lake. The cable is a single conductor, single-phase and operates at 6,900 volts to supply 3½ miles of rural line. It was put in service on July 13, 1934.

Renfrew R.P.D.—**QM16D1**—With the erection of the Renfrew-Cobden feeder line, it became possible to serve a large number of consumers by constructing 4.5 miles of rural line in the townships of Adamson and Bromley. It is expected that service will be given in the latter part of November, 1934.


RURAL POWER DISTRICTS
GROWTH IN CAPITAL INVESTMENT ~ MILES OF LINE ~ NUMBER OF CONSUMERS
YEAR
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
DOLLARS
CAPITAL INVESTMENT
26,000,000
24,000,000
22,000,000
20,000,000
18,000,000
16,000,000
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
MILES
MILES OF PRIMARY LINE CONSTRUCTED
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1 000
0
NUMBER
NUMBER OF CONSUMERS
65,000
60,000
55,000
50,000
45,000
40,000
35,000
30,000
25,000
20 000
15 000
10 000
5,000
0
YEAR
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934

DISTRIBUTION FEEDER CONSTRUCTION

The following work was carried on in connection with distribution feeders:

NIAGARA SYSTEM

Baden D.S. to Phillipsburg—N635x6—This circuit which forms a part of the Wellesley feeder was re-built where the poles needed replacing, and in order to improve voltage regulation in the village of Wellesley, larger conductors were strung between Baden distributing station and Phillipsburg. The work was completed December 22, 1933.

Boyd Brick Co. Junction to Gypsum Co. Junction—N1360x61—The capital invested in the feeder line between the Boyd Brick Company junction and the Gypsum Company junction covering 0.7 of a mile of line was transferred to feeder line capital. The transfer was made as of February 1, 1934.

Dominion Petroleum Junction to Dominion Petroleum Co.—N1489x29—The Dominion Petroleum Company having signed a rural power contract and become a rural consumer, it was necessary to transfer the capital invested in the three miles of three-phase 8,000-volt feeder line to rural capital. The transfer was made as of January 23, 1934.

Gypsum Co. Junction to Campbellville—N1361x17—The capital invested in the feeder line between the Gypsum Company junction and Campbellville covering 3.3 miles of line, was transferred to feeder line capital. The transfer was made as of February 1, 1934.

Milton to Boyd Brick Company—N1308x60—The capital invested in the feeder line between Milton and the Boyd Brick Company covering approximately 2.2 miles of line was transferred to feeder line capital. Crossarms and conductors on town poles in the town of Milton were purchased from the municipality. The transfer was made as of February 1, 1934.

Ringwood D.S. to Stouffville—N395x21—The town of Stouffville was formerly fed at 4,000 volts from the 26,400-volt sub-station at Mount Joy. When the 26,400-volt line was extended to Ringwood, capital investment representing 1.35 miles of lines was transferred from the Mount Joy-Stouffville feeder to the Ringwood-Stouffville feeder to cover the section of 4,000-volt line left in service. The transfer was made as of January 7, 1934.

Waterloo D.S. to Bridgeport—N740x9—The section of this feeder from Waterloo D.S. to Lexington, which was formerly a three-phase rural line, did not have conductors of sufficient capacity to carry the load and heavier conductors were erected between these two points. It was also necessary to change the dead-end connections, replace a number of crossarms and provide additional guying. The work was completed January 22, 1934.

EASTERN ONTARIO SYSTEM

Renfrew to Cobden—QM16x1631—Work was commenced early in October on a feeder line from Renfrew to Cobden approximately twenty miles in length. This included fifteen miles of new three-phase line and five miles of existing single-phase to be changed to three-phase. The line will supply power at 6,600 volts to the municipality of Cobden. At the end of the fiscal year, all the holes had been dug and the poles erected, and a substantial amount of the wire strung.

SECTION VII

TESTING—RESEARCH—INSPECTION

The Testing and Inspection department has three main divisions: the Testing and Research laboratories, the Approvals laboratory and the Electrical Inspection branch. Each of these divisions performs duties of a special nature, but collectively they may be considered as being a service institution established for the benefit of the other departments of the Commission, the Hydro municipalities and their customers and, to some extent, for the benefit of power consumers in the province of Ontario as a whole.

The Testing and Research laboratories comprise the Electrical laboratory, Engineering Materials laboratory, Chemical laboratory, Illuminating laboratory and the Photographic and Blueprint branches. Their functions include testing, inspection and research in so far as these relate to the generation, transmission, distribution and consumption of electrical energy. The work of the Approvals laboratory embraces the testing and inspection of electrical equipment manufactured for use within the Province to assure the elimination of equipment hazardous to human life or to property. The Electrical Inspection division is responsible for the administration of the Commission's Rules and Regulations governing electrical installations. The duties of this section cover the inspection of wiring installations throughout the Province.

Reference was made in last year's report to the Research committee. This committee and its associated sub-committees has done valuable work during the year, and reference is made below to several of its accomplishments.

Statistics for the year are encouraging in that they show an increase over last year's operations of approximately 14 per cent in the volume of general testing.

TESTING AND RESEARCH LABORATORIES

Statistical and Routine Work

A total of 46,747 tests of all classes was made by the Testing and Research laboratories during the year. Of this total, the Electrical laboratory made 14,673 tests, the Chemical laboratory 1,317, the Structural Materials laboratory 7,570, and the Photometric laboratory 23,187. The Blueprint branch completed 4,331 orders and made 48,252 prints having a total area of 136,560 square feet, and the Photographic branch completed 556 orders relating to routine work. The above statistics include tests to check the quality of materials such as insulators, rubber gloves, transmission line hardware, paint, lamps, etc.; tests required for research and standardization projects; tests made at the request of Hydro municipalities; commercial tests, and calibrations on electrical measuring or recording devices.

Materials and Equipment Inspection Work

The volume of inspection work was maintained at a somewhat higher level than last year owing principally to the construction of the Ottawa-Cornwall transmission line and the new Administration building.

Transmission Line Materials

For many years it has been the Commission's practice to purchase all materials under rigid specifications and to provide adequate inspection to assure compliance with these specifications. This involves the inspection of items such as insulators, clamps, pins, cross-arms, conductor materials, galvanized steel wire, bolts, splices and connections.

Detailed inspection is also made of steelwork for high-tension tower construction and for station structures. This work is done by an inspector resident at the point of fabrication, who is responsible for the material reaching the field without delay and in accordance with the plans and specifications. During the year, inspection was made of steelwork for the Ottawa-Cornwall transmission line and for station structures at Kirkland Lake and Smooth Rock.

Equipment

During the fiscal year, 32 power transformers and 495 distribution transformers of total capacity 160,150 kv-a, 17 circuit-breakers of total capacity 2,153,000 kv-a, and 22 disconnecting switches of total capacity 5,255,000 kv-a, were inspected and released for shipment. The staff also inspected equipment required in the construction and erection of five electric steam generators having a total capacity of 85,000 kw. and one welded steel heating boiler for the new Administration building.

Inspection has also been made of power-house equipment in connection with the Beauharnois contract. Included in this were one 46,625-kv-a generator, two 53,000-h.p. turbines, one motor generator exciter, and several transformers, breakers and switches. Extensive physical and metallurgical tests were made on specimens from the turbine and generator shafts, and special attention was directed to the welding of various parts of the equipment.

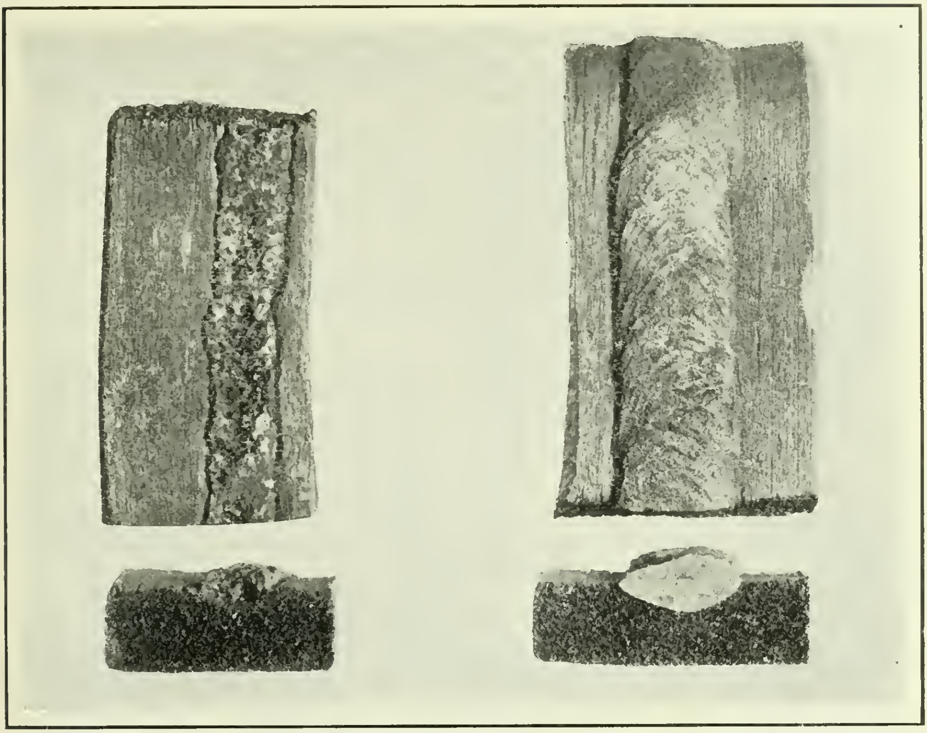
Administration Building

The structural and reinforcing steel required for the new Administration building was inspected during fabrication, and an inspector has been stationed at the site to check the workmanship and alignment during erection.

Concrete

Inspection of concrete for the Administration building is the major item under this heading. Inspectors have been stationed at the proportioning plant to check the quality of the mix and at the site to supervise the placing and curing operations.

Following the established practice of inspecting the Commission's existing concrete structures at least every three years, examinations were made of the



COMPARATIVE EFFECT OF CORROSION ON TWO TYPES OF WELD METAL

following: Brant and North Bay transformer stations, sections of the Queenston-Chippawa canal, the Eugenia Falls main dam and the developments at Bingham Chute, Elliott Chute, Hanna Chute, South Falls, Trethewey Falls, Wasdells Falls, Nipissing, Seymour, Bala and Auburn.

At the request of the Hamilton Hydro Commission, an inspection was made of disintegrated concrete street poles, and recommendations were made as to the advisability of repairing them.

Research

New Methods and Materials

The laboratories continue to investigate the merits of new materials and methods in order to assist the Commission's engineers in keeping fully informed of any new developments which might be helpful in the Commission's operations. Items of this nature investigated during the year include: special wire of British manufacture, devices for transmission line construction, linemen's safety belts, lamps for special service, a special cross-arm device for telephone lines, heat-resisting steels, reflex signals for vehicles, lighting units, metal spray coatings and hotplate units for domestic use.

Investigation of Troubles

As in other years, the laboratories have been called upon to investigate troubles arising out of operation or to explain phenomena observed on our systems. Typical examples of these are:

Examination of an aluminum conductor removed from a railway crossing to determine to what extent corrosion had affected its strength. It was found that the strength was unimpaired and that scale rather than corrosion had caused the surface condition.

A metallurgical examination of a broken pump-shaft to determine the cause of failure. The examination revealed that the steel was not suitable for this type of service, and recommendations were made as to the grade of metal that should be used.

A bent axle was examined to determine if the manufacturer was at fault in supplying soft steel. The manufacturer was exonerated and cause of failure was discovered.

An examination to determine the cause of failure of an aluminum conductor from Harrow rural power district. The material was found to be of good quality, failure having resulted from the service conditions to which the conductor had been exposed.

Inspection of two tower members which had failed by vibration.

Inspection of cracks which had developed in the brake ring of a Queenston generator. A procedure for repairs was recommended.

Investigations Leading to Improvements in Methods or Materials

Attention has been given to a large variety of problems during the year. Of these special mention may be made of the following:

The development of an inexpensive potential indicator designed for high-tension lines. This device has proved to be very reliable.

Improvements in electric water installations for domestic use. A fuse-link was developed to act as a high temperature safety trip in the heating circuit.

Short-circuit tests on high-voltage cutouts used on distribution circuits. Oscillograph records were taken of a large number of samples under various operating conditions.

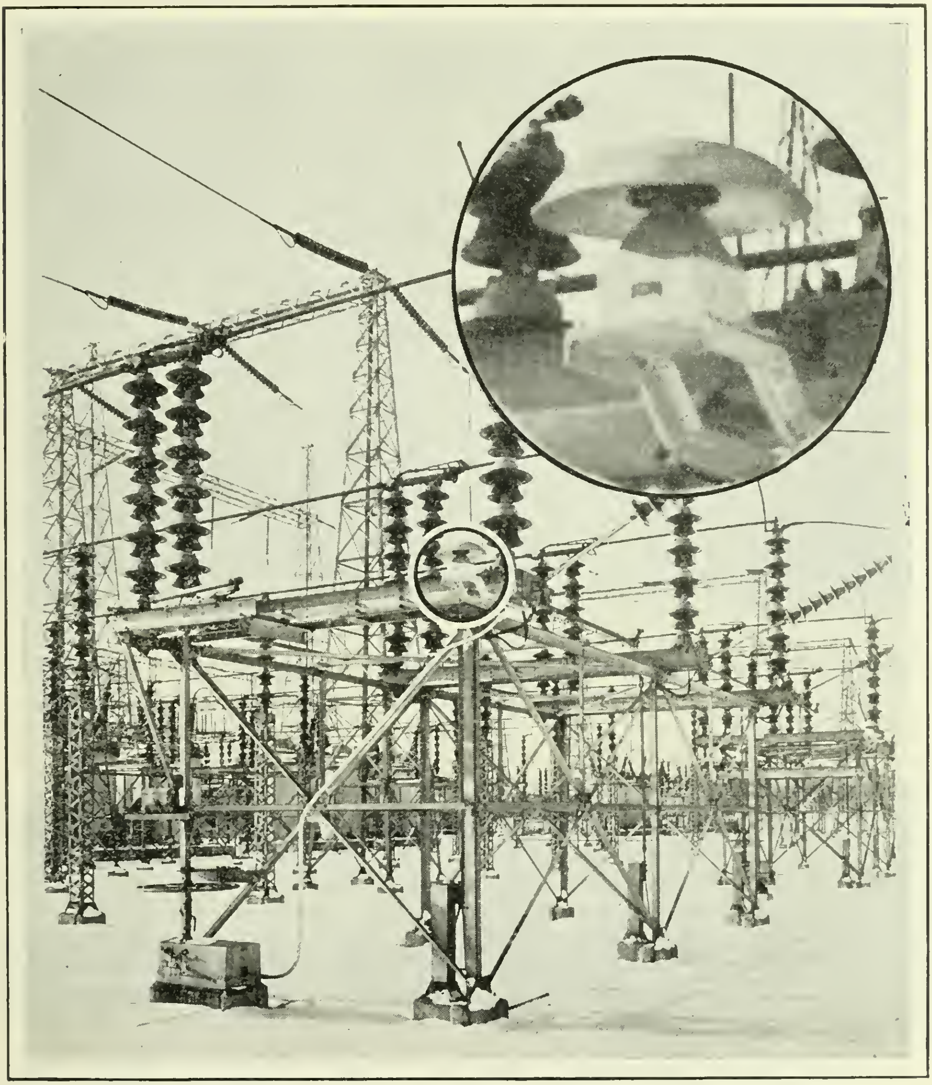
Power factor measurements on bushings. A method was developed for measurement of the power factor of insulation at high voltage where the electrostatic capacity is not too high.

An investigation to determine the possibility of recharging lightning arrester cones. A suitable procedure was established.

Study of protective treatments for tower footings below the ground line. Twelve different treatments have been investigated.

Tests on various types of line ties. Four hundred tests were made using bare and weatherproof wire.

Tests on welded chain. Three types of chain were tested using electric butt welding and lap welding.

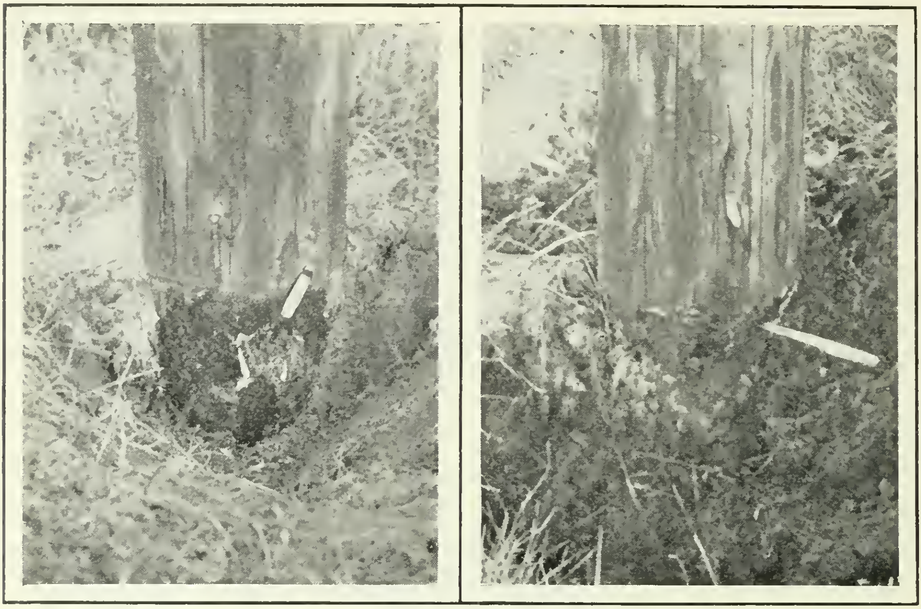


POTENTIAL INDICATOR FOR 220,000-VOLT CIRCUITS—ELECTRICAL LABORATORY
Leaside Transformer Station

Vibration tests on dead-end clamps and connections. Sufficient work has not been done to obtain conclusive results.

An investigation to determine the effect of the hot bath process on the physical characteristics of weatherproof wire. Tests have been made on 259 samples with the intention of using the data in the preparation of specifications.

Comparative tests on different grades of asphalt roofing felts. Tests have been completed, and an analysis is being made of the data.



WOOD POLE STUDIES—CHEMICAL LABORATORY

LEFT—Jack Pine pole after 17 months' exposure. Decayed sapwood removed and brush coat of creosote applied.

RIGHT—Same pole after 5 years' exposure—no further decay in heart wood since creosoted

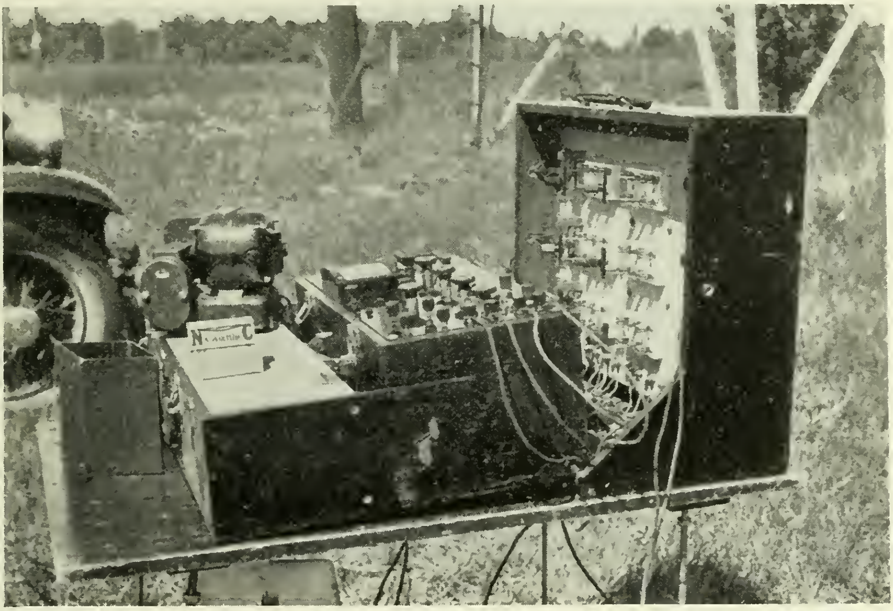
Treatment of Wood Poles

This project has been very active during the year. In collaboration with the Operating department, an inspection was made of several wood-pole lines, near North Bay. Particular attention was focussed on the study of insect destruction which has become a matter of much concern in that vicinity. The inspection yielded information which made possible the working out of a procedure for combating the destruction. In the North Bay district also, several groups of poles representing various preservative treatments were inspected and their condition recorded.

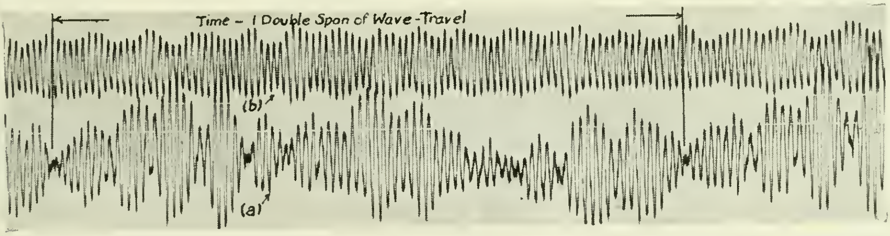
In the Niagara district, 300 poles were tested with an increment borer, records were made of centre rot found and the entire group was tagged. Inspection was also made of the poles in the test beds at Barrie and Leaside, as well as of those poles which were stubbed with galvanized steel shells last year. In addition, twenty soils were analysed to provide data for the study of soil classification and its relation to wood-pole decay.

Paint

The value of the laboratories' paint research has been firmly established, and the annual saving to the Commission already effected has reached substantial proportions. Although this work has, to a large extent, become a routine matter, the Chemical laboratory is continually making tests on new products and methods of application. A complete series of tests was conducted to determine the wearing qualities of concrete floor paints, and studies were made of improved methods of painting wood.



EQUIPMENT FOR MEASURING TRANSMISSION LINE VIBRATIONS IN THE FIELD



CURVATURE RECORDS OF VIBRATIONS ON 795,000 CIR. MIL. CONDUCTOR

Concrete

The following problems relating to concrete were studied during the year:

Thermal tests on concrete and concrete aggregates. This investigation, started just prior to the beginning of the year, was brought to a successful conclusion. Data were obtained as to the relative heat insulating values of various coverings for protecting concrete, the heat required for stockpiles during cold weather, the temperature of mixing water required to give a concrete mixture of specified temperature, the heat gradient of concrete in the forms and the degree of protection afforded by natural hydration of cement.

Proportioning tests on mixtures using crushed and screened rock as a substitute for natural sand. The proportioning and strength tests were completed but final analysis of the data has not been made.

An analysis of concrete compression tests and the probable uniformity to be expected in the field. The data previously assembled were re-studied and additional data were analysed.

Tests required for the new Administration building. The work included an investigation of the aggregate, proportioning tests for strength and workability, and tests to determine the best method of grouting column bases.

Proportioning tests for minor developments and repair jobs. Included in this were investigations for the development at Rat Rapids, repair work at Bingham Chute, Eugenia Dam, McVittie and Cameron Falls, station structures of Cornwall and Kirkland Lake, and the proposed dam at Cobden.

Studies on durability of concrete. For some years the Commission's laboratory studies have been closely co-ordinated with periodic observations as to the durability of various types of concrete structures in service. This is an essential procedure in correlating the theoretical and practical aspects of the problem. This year a survey was made of several structures which had previously been inspected in 1928. In all, nineteen structures were inspected and their condition recorded.

In February, the American Concrete Institute held its annual convention in Toronto. A member of the staff presided as chairman of the convention committee and two papers on "Winter Concreting" were prepared and presented by the Commission's technicians specializing in concrete construction problems.

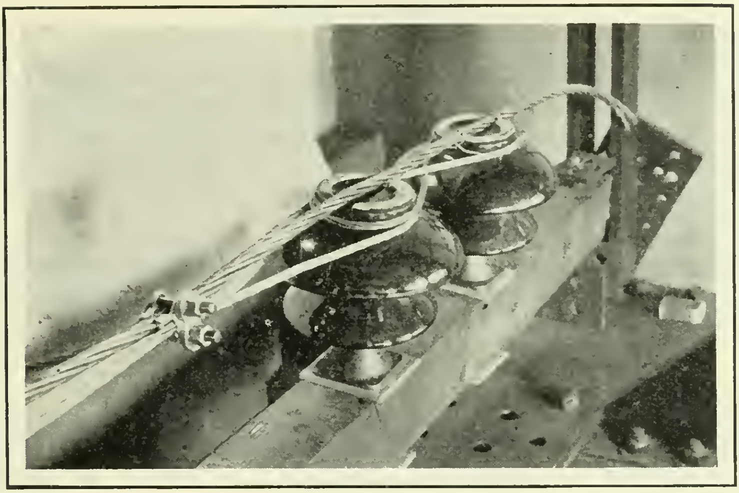
Vibration of Transmission Line Conductors

One of the most important research projects in recent years has been the investigation of remedial measures for preventing or reducing the destruction caused by transmission line vibrations. An entirely new method of attacking the problem, together with suitable instruments for measuring and recording vibrations, were developed by the staff and an extensive series of tests was conducted in the field. A wealth of practical data has been obtained, some details of which have been published in the American Institute of Electrical Engineers Journal of November, 1934.

Some work has also been done on endurance testing of clamps and connections using a mechanically sustained vibration on a laboratory test-span. Another study is in progress to determine the metallurgical characteristics of conductor materials in order to obtain data as to their endurance limits and the safe range of stress to which they may be subjected in service.

Radio Interference

This department co-operates with the Federal authorities in making tests towards mitigating interference of radio broadcasts by power line circuits. An extensive series of tests was conducted on line materials and devices to determine conditions under which radio interference might arise therefrom.



TEST TO DETERMINE THE STRENGTH OF INSULATOR PINS AND THE EFFECT OF YOKING THE INSULATORS

Structural Materials Laboratory

Communication

Assistance was provided towards the installation of radio communication equipment for the Rat Rapid development, and attention was given to various broadcast and carrier-wave installations at such times as special treatment was required.

Test Methods

In the interests of economy, testing methods and equipment have been standardized as far as possible, but it is necessary that vigilance be exercised to ensure that results be valid. A survey is being made of the more recently developed methods used by manufacturers in so far as they relate to the duties of this department.

Miscellaneous Research

Owing to the accumulation of experience on general engineering matters, members of the staff are frequently called in consultation on subjects pertaining to power generation and distribution. Typical subjects of this nature are the carrying capacity and stability of operation of networks and systems, and the protection of electrical apparatus from lightning or overload.

The problem of co-ordination of types of construction permissible where power and communication circuits must occupy adjacent locations has led to the formation of a Joint committee composed of communication engineers from various organizations. The laboratories are co-operating with this committee whose aim is to work out the most economical solution satisfactory to all parties concerned.

Inventions

Several inventions submitted to the Commission were examined and reported upon.

Miscellaneous

New Equipment

Only a few items of new equipment were purchased during the year. These included a vibration generator, a three-ton hoist for adjusting tension of conductors in vibration tests, a micrometer microscope for measuring thickness of electrical insulation, equipment for moisture absorption tests on non-metallic tubing, an abrasion tester for conductor coverings, and a set of sieves for mechanical analysis of concrete aggregates.

Equipment was designed and constructed for testing the wearing qualities of paints intended for concrete floors, and the existing cord endurance tester was entirely rebuilt and fitted with a new gear-reducing unit.

Purchase Specifications

During the year specifications were prepared in co-operation with the Research committee for gasoline, automobile lubricating oils and creosote.

Members of the staff co-operated with the city of Toronto By-law committee in the revision of the City Building Regulations, and with the Canadian Engineering Standards Association in connection with specifications for heavy steel shaft forgings.

Lighting Service

The facilities of the laboratory are at all times available to assist municipalities and their customers in the solution of their lighting problems. During the year, twenty-seven reports were submitted in response to customers' requests for this type of service.

Extensive use has also been made of accumulated data on this subject to demonstrate the value of commercial display lighting, and to promote a wider use of power for this purpose. In this connection six lectures on lighting were delivered during the year to service clubs, merchants associations, chambers of commerce, and other organizations.

Lamps

The testing and inspection of Hydro lamps was carried on as in previous years. This year, the volume of work was greater than has been recorded at any time since accurate statistics have been kept.

Lamps are used in a great variety of ways and under many conditions, and situations arise where the particular condition of each situation must be considered. During the year, assistance was given in nineteen such cases.

Gaseous conduction lamps have attracted much interest, particularly in regard to their use in highway lighting. A study was made of the outstanding features of these lamps, and a report was submitted for the information of the Engineering department.

The laboratory has continued to test headlamps and other automobile lighting equipment for the Department of Highways.

APPROVALS LABORATORY

Statistical

The following table contains a summary of the testing and inspection work of the Approvals laboratory for the past three years:

	1932 number	1933 number	1934 number
Applications for approval	660	743	742
Special approval tests, etc.	178	237	267
Listing applications	52	67	54
Factory inspection reports	3,039	3,328	3,993
Labels sold (except wire, cord, conduit, etc.)	696,100	621,723	1,057,378
Labels sold, conduit	....	446,000	705,000
Labels sold—Wire, cord, armoured cable, etc.	....	334,000	438,000
Total number of labels sold	696,100	1,401,723	2,200,378

The following table gives the amount of wire, cable and conduit labelled during the past two years:

	1933 feet	1934 feet
Insulated wire (Incl. R.C. fixture wire and heat-resisting fixture wire)	63,600,000	74,125,000
Flexible cord	22,200,000	20,375,000
Heater cord	5,560,000	4,500,000
Armoured cable	7,420,000	9,150,000
Flexible steel conduit	120,000	150,000
Flexible non-metallic tubing	4,500,000	4,250,000
Non-metallic sheathed cable	6,300,000	7,250,000
Rigid steel conduit (Incl. nipples and elbows)	4,680,000	7,050,000

These figures indicate a substantial increase in production during 1934.

Applications for approval may be sub-divided as follows:

	1933 number	1934 number
Motor-driven appliances	222	194
Electrically-heated appliances	168	201
Wiring devices	125	96
Lighting devices	106	112
Industrial control and transformers	43	31
Miscellaneous	43	53
Wire and cable	19	17
Radio and sound appliances	17	38

Specifications

Summary of Work

	1932-33 number	1933-34 number
Specifications in process by Canadian Engineering Standards Association, November 1	15	17
Specifications printed	5	7
Specifications advanced to final C.E.S.A. form	4	1
Specifications begun by laboratory staff	10	8
Meetings of C.E.S.A. Specification panel attended	15	9
Average attendance of laboratory engineers	3.5	3
Other meetings relating to Approvals work	3	2

One engineer called upon electrical inspectors and manufacturers throughout Western Canada in relation to the new edition of the Canadian Electrical Code and to specifications mentioned above, in addition to general re-examination work. A special meeting of enclosed switch manufacturers and inspectors was held in Vancouver to discuss the third draft of the Enclosed Switch specification.

Label Sales

Label service on electric fixtures was made effective at factories in Ontario and Quebec in Janaury, 1934. In an effort to control the construction and installation of sub-standard coal-burning equipment, label service under the name "Coal Blower or Stoker" was devised and put into effect in factories and shops, where such equipment is assembled, in September. It is believed that such label service, requiring as it does more rigid specifications and inspection at the factory has done much to raise the standard of construction and to eliminate fire and accident hazard from two very important lines of domestic equipment.

It will be noted that there has been more than 50 per cent increase in the total number of labels sold. In the general group only four small items, motor starters, cabinets, enclosed branch circuit cutouts and branch circuit breakers do not show an increase. Fixtures, portable lamps, clocks and radio show the largest increases. Electrical materials for construction work such as conduit, wire and cable also have been much more in demand than in the preceding year.

Miscellaneous

Short-circuit testing of fuses and small circuit breakers was extended during the year to include 250-volt cartridge fuses, the test equipment being moved to the Scott street substation of Toronto Hydro-Electric System.

Test equipment was devised and put into operation for the testing of small thermostats for electric heating pads. The whole routine for heating-pad tests was standardized and several manufacturers' products tested in accordance with H-E.P.C. Specification No. 33 (C.E.S.A. draft No. 15). Some definite changes in this draft seem to be required as a result of these tests observed; but for the present year the specification as written is to be taken as laboratory requirements for approval. A machine for applying flexing tests to heating pads was constructed and arranged to be driven from the driving unit of the abrasion testing machine used for tests on braid of insulated wires.

Among the newer lines of appliances engaging the attention of manufacturers during the year, the following deserve notice: Hair-dressing appliances, air-conditioning equipment both of the evaporation and water-washing types, refrigerating and cooling equipment, beer pumps, battery-chargers for car owners, X-ray and medical equipment, radio test equipment, as well as many other new lines of heating appliances and motor-operated devices.

New types of rubber-jacketted heater cord have been developed for heavy duty pressing by flat irons. Asbestos-insulated nickel wire has become standard for the internal wiring of table-cooking appliances by some manufacturers. Improvements in the dielectric strength of appliances designed to be used in contact with patients, or the operators in hospitals have been made on the recommendation of the engineers of the laboratory and in some cases secondary insulation has also been provided. An improvement in the quality of heater cord has been effected. The laboratory suggested to the wire manufacturers that one of two types of cord be abandoned and that only the more durable type be produced. This suggestion was accepted.

These and many other changes in the general improvement of electrical equipment submitted to the Approvals laboratory may be noted and have been favourably commented upon by manufacturers and field inspectors.

A complete revision of the list of Approved Electrical Equipment in pamphlet form was issued in February and distributed to electrical inspection offices and others interested throughout the Dominion.

As an adjunct to this list, weekly publication was begun in April of a list of equipment on which laboratory work was now complete and final report issued, together with a list of applications for approval received. This list in mimeograph form has been circulated to the electrical inspectors of the Commission and those in other provinces in which effective sales control is being carried out.

The wire and cable manufacturers formed a technical committee for the purpose of discussing matters of laboratory procedure and specifications and other items of common interest. This committee has been of great value in effecting a saving of time in discussions on these matters, which previously were conducted with individual manufacturers.

The Approvals laboratory has continued its work of preparing specifications in co-operation with the Canadian Engineering Standards Association and the manufacturers—in this work it has found the Canadian Engineering Standards Association invaluable.

Some assistance was rendered to the research sub-committee on domestic services in the design of service entrance cable and of service equipments comprising a combination service switch, panelboard and switches for control of water heaters.

ELECTRICAL INSPECTION DEPARTMENT

The Electrical Inspection department of the Hydro-Electric Power Commission has now been in operation for a period of nineteen years. It was formed, in the latter part of 1915, to supervise the carrying out of the Rules and Regulations governing electrical installations in all municipalities of the Province of Ontario. It functions for the Provincial Government under the direction of the Ontario Hydro-Electric Power Commission.

The Rules and Regulations were drawn up primarily because it was necessary to protect human life and also property from the hazards incidental to the wide and varied use of electrical energy in the Province. The original rules were known as the "Rules and Regulations of the Hydro-Electric Power Commission of Ontario."

Owing to the increasing intercourse between the several provinces of the Dominion, it was deemed advisable, in the interests of economy and efficiency, to formulate a code of regulations which would be acceptable to all. The preliminary work on these rules and regulations was started in 1920.

The new rules, known as the Canadian Electrical Code, Part I, are, generally, based on the "National Electrical Code" and the "National Electrical Safety Code", together with the "Rules and Regulations of the Hydro-Electric Power Commission of Ontario" and local regulations in force in the various parts of Canada.

It would be impossible, in the space available, to enumerate those members of the several committees responsible for the different sections of the "Code." It will suffice to say that these committees were composed of representatives from every field interested in the application and installation of electric wiring and equipment, such as public utilities commissions, architects, fire underwriters, manufacturers of electrical equipment, electrical contractors, electrical inspectors, electrical engineers, the Dominion and Provincial governments, etc., etc.

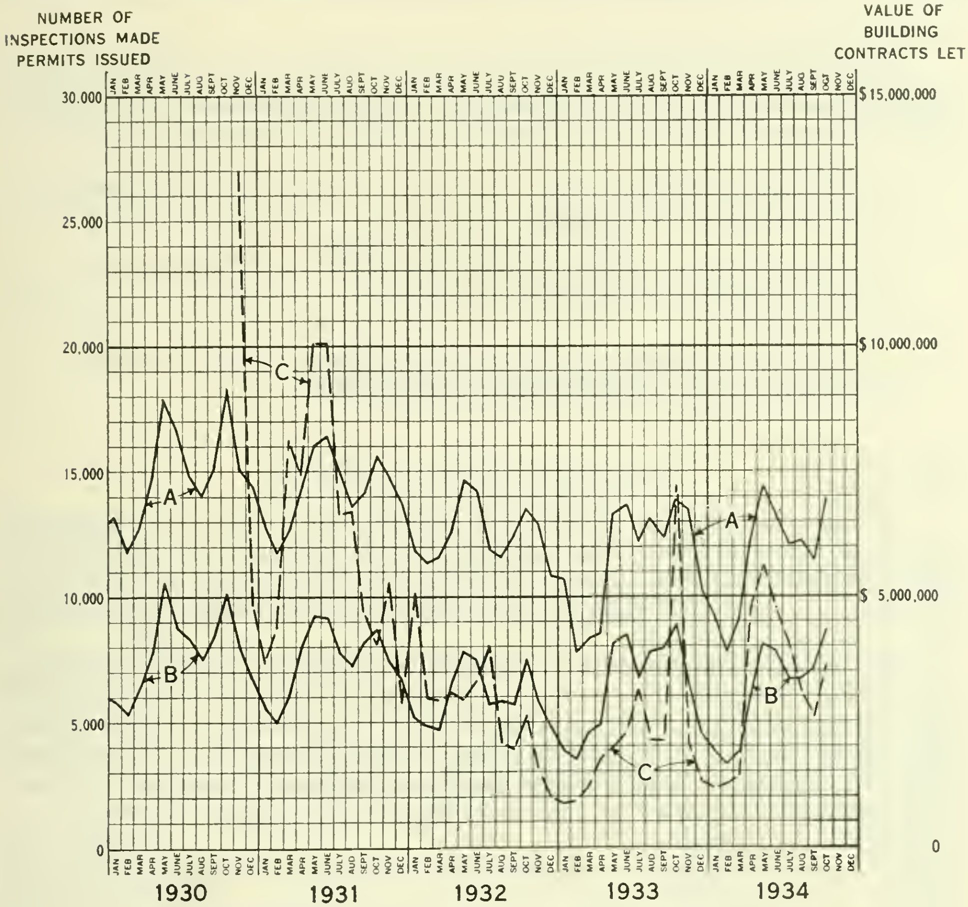
The Canadian Electrical Code, Part I, has been adopted by all provinces of the Dominion, thereby assuring an equal standard of electric wiring and equipment installation throughout Canada.

Statistical

The following table contains figures relating to the operation of the department for the past three years:

	1932	1933	1934
No. of applications for inspection	76,171	75,054	73,224
No. of inspections made	153,895	137,760	139,720
Value of building contracts let	$38,488,900	$26,292,000	$36,096,200

The accompanying graph shows the monthly trend in these figures for the past five years.



NOTE—Curve A = No. of inspections; Curve B No. of permits issued; Curve C Value of building contracts

Fires Attributed to Electricity

A great number of fires are reported to the department each year, as having been caused by defective electric wiring or equipment. Upon investigation it is found, in the majority of instances, that any evidence which would afford proof of electrical origin, has been destroyed by the fire. Twenty-three fires were found to have been due to electrical defects as compared to thirty-one in 1933. The fires are classified, as to origin, below:

Origin	Number
Armoured cable	8
Flexible cord	5
Defective fixture joints	3
Short circuit in conduit	1
Short circuit in meter trough	1
Accidental ground	1

Origin	Number
Defective canopy switch	1
Defective automatic control	1
Gasoline vapour ignited in cleaning establishment, by arc from socket not approved for use in such locations	1
Gasoline vapour ignited inside of gasoline dispensing standard	1

It will be seen that 35 per cent of the fires attributed to electric wiring and equipment were caused by armoured cable and 22 per cent by flexible cord extensions.

Electrocutions

Three persons were electrocuted this year, through contact with electrical equipment coming under the jurisdiction of this department, this number being a decrease of one from last year. The individual causes are cited below:

> Man electrocuted through coming into contact with an ungrounded motor. Voltage of circuit, 550.
>
> Man electrocuted while using a defective extension cord equipped with a brass socket. Voltage of circuit, 115.
>
> Man electrocuted by grasping a bare conductor while standing on a steel drum. Voltage of circuit (to ground), 200.

Ground Tests

In order to minimize life and fire hazards, the Rules and Regulations require all non-current-carrying metal parts of services to be grounded and in some instances, one of the service conductors. In the larger towns and cities, the municipal water piping system, which has a known low resistance, is used.

In isolated communities and in rural districts where a suitable water pipe ground is not available other means must be resorted to, such as driven ground rods, etc. On account of the great diversity in the resistances obtained from, mechanically similar, grounds of this type in different localities, it is necessary that each consumer's service ground resistance be known, previous to authorizing the supply authority to connect its lines to the consumers' service.

This year, 1,819 grounds were tested as compared to 2,222 in 1933.

Infractions of Regulations

Twenty-four persons and companies were prosecuted for various infractions of the Provincial Rules and Regulations, such as working without permits or neglecting to remedy defects which constituted hazards to life and property.

Re-Wiring

The routine work of re-inspecting the older and more obsolete type of installation has been carried out, as in previous years. In all, 2,616 installations were brought up to a reasonable standard of safety at an estimated cost of $183,963.

Coal Blowers

A large increase has been noted in the number of coal blowers and stokers installed, for domestic use, during the past two years. A great deal of work has devolved upon the department in checking these installations and in eliminating unapproved electrical equipment.

SECTION VIII

ELECTRIC RAILWAYS

GUELPH RADIAL RAILWAY

Operation

There was no major commitment on capital account during the year. Way and structures, and equipment were well maintained.

The results from operation are shown in the following tabulation and chart.

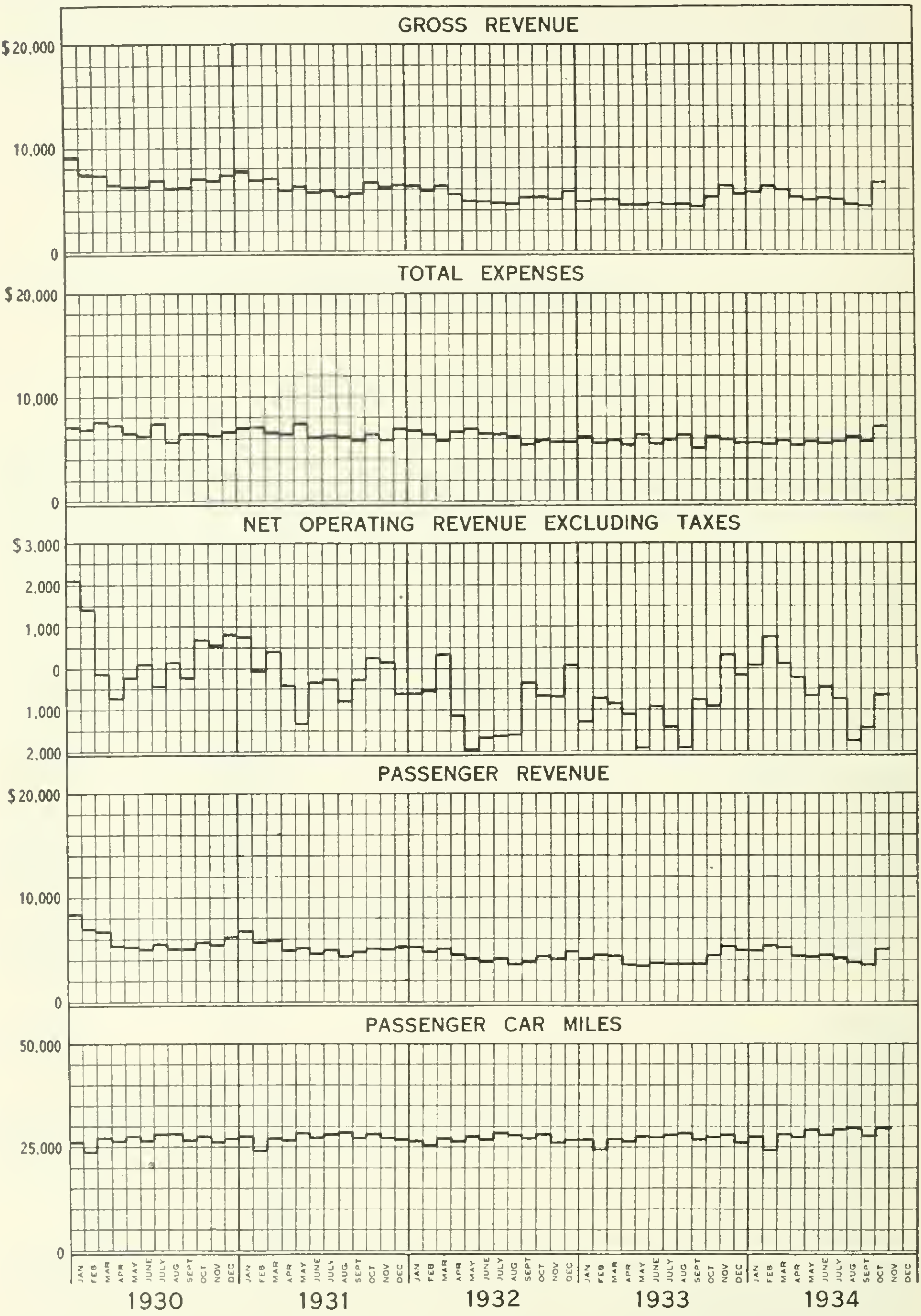
GUELPH RADIAL RAILWAY

Comparative Operating Statistics

	1933	1934
Gross earnings	$57,455	$65,049
Operating expenses	69,806	69,147
Operating shortage	12,351	4,098
Interest and debenture payments	25,468	25,093
Sinking fund	3,159	3,159
Deficit	41,332	*32,607
Passenger earnings	47,921	55,215
Freight earnings	8,931	9,299
Route-miles:—		
Trolley	6.41	6.41
Bus	5.99	5.99
Total	12.40	12.40
Track-miles	9.06	9.06
Passenger cars operated	7	7
Passenger buses operated	4	4
Car-miles operated:—		
Passenger cars	221,185	225,466
Passenger buses	91,419	97,698
Freight locomotive	9,908	10,424
Car-hours operated:—		
Passenger cars	27,619	27,896
Buses	13,037	13,860
Freight locomotive	2,141	2,064
Passengers carried	1,066,285	1,196,377
Percentage of transfer passengers to revenue passengers	27.1%	27.15%
Accidents—total	17	25
Accidents—automobile	11	19
Accidents per 100,000 car-miles	5.1	7.5

*Deficit includes $11,700, on purchase account, of which $8,731 is amortization and $2,969 interest charges.

GUELPH RADIAL RAILWAY—OPERATING STATISTICS



THE SANDWICH, WINDSOR AND AMHERSTBURG RAILWAY COMPANY

Operation

The management of the Sandwich, Windsor and Amherstburg Railway which has been under the supervision of the Hydro-Electric Power Commission since 1920, was transferred on September 22, 1934, to the Sandwich, Windsor and Amherstburg Railway Company, a local body created under the provision of *The Sandwich, Windsor and Amherstburg Railway Act, 1930*. The transfer relieved the Commission of all responsibilities in connection with the operation of the railway. The following report deals with the period November 1, 1933, to midnight, September 22, 1934.

The adjustment of the 1933 power bill was made too late to be included in the 1933 report and the amount of $1,741 has been credited to 1934 operating expense. Similarly the 1934 adjustment has not been made at time of writing.

Conditions in the Border Cities have improved and are reflected in the increased earnings for the period operated. The accompanying chart indicates the record of the railway for the past five years.

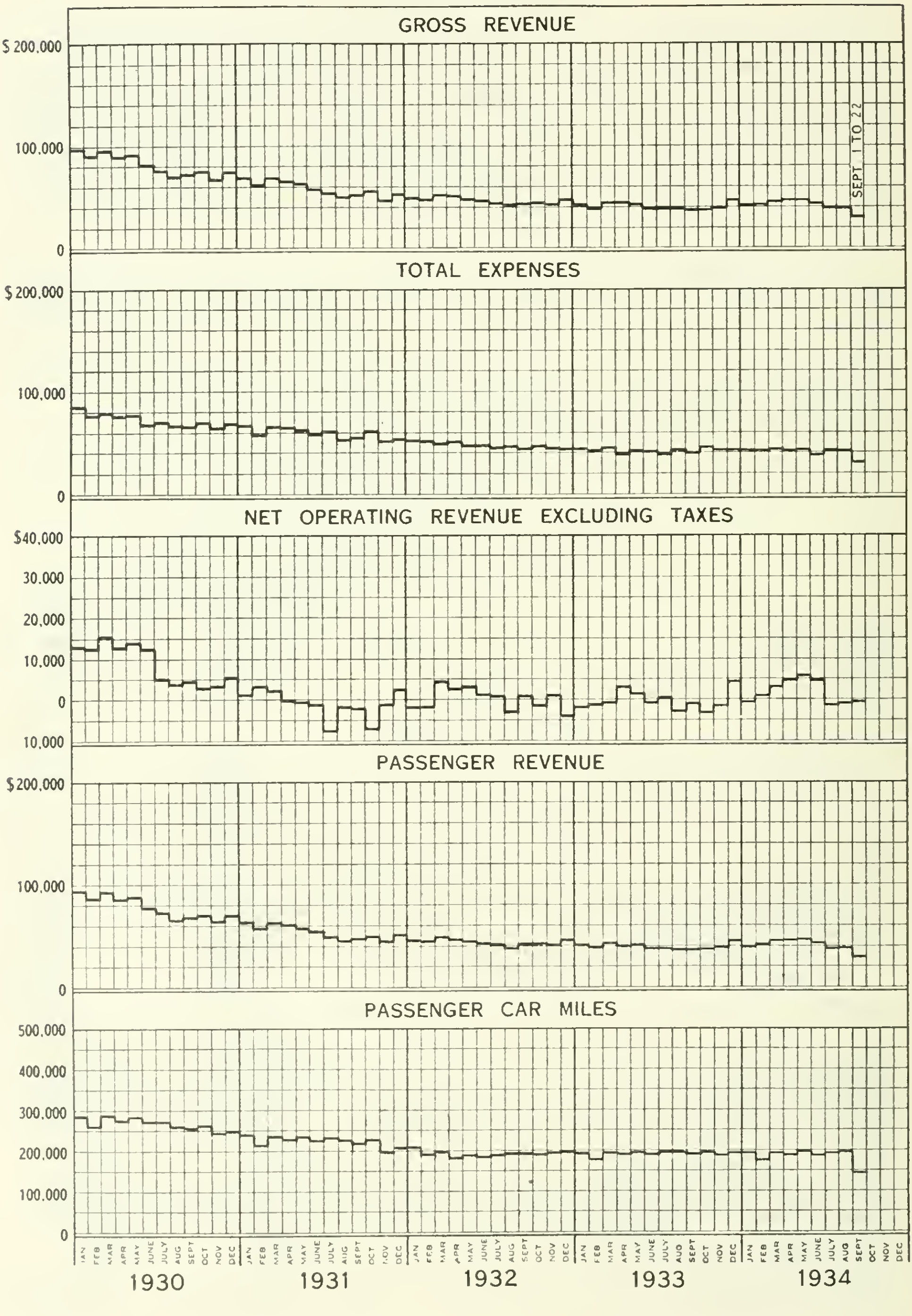
The following tabulation gives comparative operating statistics for the past two years.

SANDWICH, WINDSOR AND AMHERSTBURG RAILWAY

Comparative Operating Statistics

	Fiscal year ended Oct. 31, 1933	Nov. 1, 1933 to Sept. 22, 1934
Gross earnings	$492,795	$457,136
Operating expenses	498,134	434,016
Operating surplus (shortage)	(5,340)	23,119
Route-miles:—		
City lines	24.81	24.81
Amherstburg interurban	13.54	13.54
Tecumseh interurban	5.34	5.34
Total	43.69	43.69
Car miles operated:—		
Double-truck, 2-man cars	2,823	7,501
Interurban cars	438,297	380,853
Single-truck safety cars	569,528	471,359
Double-truck safety cars	1,311,334	1,207,814
Express cars	10,944	9,626
Service cars	12,268	10,473
Total	2,345,194	2,087,626
Passenger and freight car-hours	237,426	213,067
Passengers carried	8,576,698	8,086,437
Percentage of transfer passengers to revenue passengers	21.15%	21.19%
Passenger cars operated	58	57
Passengers carried per route-mile	196,308	171,800
Passengers carried per car-mile	3.7	3.9
Passengers carried per car-hour	36.4	38.2
Average mileage per car operated	40,031	36,272
Average passengers per car operated	147,874	141,867
Freight tonnage carried	1,616	871
Accidents, total	315	284
Accidents, automobile	214	195
Accidents, per 100,000 car miles	12.698	13.241

SANDWICH, WINDSOR AND AMHERSTBURG RAILWAY—OPERATING STATISTICS



SECTION IX

FINANCIAL STATEMENTS

Relating to
Properties Operated by The Hydro-Electric Power Commission in the Niagara, Georgian Bay, Eastern Ontario and Thunder Bay Systems on Behalf of Municipalities,
and to
Northern Ontario Properties Operated by the Commission on Behalf of the Province

For a clear understanding of the financial statements relating to the operations of The Hydro-Electric Power Commission of Ontario, it is essential to take account of the somewhat unique character of certain features of the Commission's organization and financial structure.

The "Hydro" electrical undertaking of Ontario is an organization of a large number of partner municipalities co-ordinated into groups or systems for securing common action with respect to power supplies, through the medium of The Hydro-Electric Power Commission which under the Power Commission Act functions as their trustee. The undertaking as a whole, embracing all the operations from the provision of the power down to its final delivery to the ultimate consumer, involves two distinct phases of operations.

The FIRST phase of operations is the provision of the electrical power—either by generation or purchase—and its transformation, transmission and delivery in *wholesale* quantities to individual municipal utilities, to large industrial consumers, and to rural power districts. This phase of the operations is performed by The Hydro-Electric Power Commission of Ontario as trustee for the municipalities acting collectively in groups or "systems", and the financial statements relating to these collective activities of the municipalities are presented in this section of the Annual Report. Section IX also incorporates financial statements respecting the Northern Ontario properties operated by the Commission on behalf of the Province.

The SECOND phase of operations is the *retail* distribution of electrical energy to consumers within the limits of the areas served by the various municipal utilities and rural power districts. In the case of rural power districts, which usually embrace within their confines portions of more than one township, The Hydro-Electric Power Commission not only provides the power at wholesale, but also—on behalf of the respective individual townships—attends to all physical and financial operations connected with the distribution of energy at retail to the consumers within the rural power districts.* The financial statements relating to the rural power districts are also presented in this section of the report. In the case of cities, towns, many villages and certain thickly populated areas of townships, retail distribution of electrical energy provided by the Commission is in general conducted by individual local municipal utility commissions under the general supervision of The Hydro-Electric Power Commission of Ontario. The balance sheets, operating reports and statistical data relating to such individual electrical utilities are presented in Section X of this report.

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*For further information respecting rural power districts consult latter portion of Section III in this Report.

Having the foregoing distinctions respecting wholesale and retail electrical service in mind, the following brief notes will assist to an understanding of the economic structure and of the general plan of administration of the undertaking, and will make clearer the financial tables herein presented. The basic principle governing the financial operations of the undertaking is that electrical service be given by the Commission to the municipalities and by the municipalities to the ultimate consumers at cost.

The charges for power supplied by the Commission to the various municipalities vary with the amounts of power used, the distances from the sources of supply and other factors. The entire capital cost of the various power developments and transmission systems is annually allocated to the connected municipalities and other wholesale power consumers, according to the relative use made of the lines and equipment. Each municipality assumes responsibility for that portion of property employed in providing and transmitting power for its use, together with such expenses—including the cost of purchased power if any—as are incidental to the provision and delivery of its wholesale power. The entire annual expenses—including appropriations for reserves—incurred by the Commission in the supply of power at wholesale are thus paid out of revenues collected in respect of such power, through the medium of power bills rendered by the Commission. The municipalities are billed at an estimated interim rate each month during the year and credit or debit adjustment is made at the end of the year,* when the Commission's books are closed and the actual cost payable by each municipality for power received has been determined.

Included in the municipality's remittance to the Commission for the wholesale cost of power—besides such current expenses as those for operation and maintenance of plant, for administration, and for interest on capital—are sums required to build up reserves for sinking fund, for renewals, and for obsolescence and contingencies. The first-mentioned reserve is for the purpose of liquidating the capital liabilities; consequently as capital obligations are discharged the plant will progressively be freed from interest expense. The other reserves are, respectively, being created to provide funds for the replacing or rebuilding of plant as it wears out; to enable the undertaking to replace existing equipment with improved equipment as it becomes available through advances in science and invention, and to meet unforeseen expenses which from time to time may arise.

The ultimate source of all revenue to meet costs—whether for the larger operations of The Hydro-Electric Power Commission or for the smaller local operations of the municipalities—is, of course, the consumer. Out of the total revenue collected by each municipal utility from its consumers for service supplied, only an amount sufficient to pay the wholesale cost of power supplied by the Commission as outlined above is remitted to the Commission; the balance of municipal electrical revenue is retained to pay for the expense incurred by the local utility in distributing the electrical energy to its consumers.

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*The financial year for the Commission ends on October 31. The financial year for the municipal electric utilities, however, ends on December 31, and the municipal accounts are made up to this date, and so recorded in Section X.

The results obtained by the annual adjustments of the Commission's capital investment, operating expenses and fixed charges, as they affect individual municipalities are shown in the tables for the respective systems. For the purpose of financial statement, the various systems are treated as separate units and for each of them similar statements and details are presented. Many of the pages which follow, therefore, simply repeat for each system data similar to those which are presented for the first system dealt with in each division of the report, namely, the Niagara system. In order, therefore, to possess a ready grasp of all the figures presented in this and other similar reports of the Commission, all that is necessary is to have a true understanding of the financial procedure followed in connection with one system and with one municipal "Hydro" utility.

The accounts of The Hydro-Electric Power Commission of Ontario are verified by auditors specially appointed by the Provincial Government. The accounts of the "Hydro" utility of each individual municipality are prepared according to approved and standard practice and the Public Utilities Act requires that they shall be audited by the auditors of the municipal corporation.

Tabular Data

The first tabular statement given in Section IX is a general balance sheet exhibiting the assets and liabilities of the undertaking and relates to the properties constructed or otherwise acquired and being operated by the Commission as trustee.

The general balance sheet is followed by groups of statements relating in turn to each system of the Commission. These statements, for each system, are similar in character and include:—

Operating Account for the year, showing, for the system as a whole, the various items of operating expense and fixed charges entering into the cost of power as defined by the Power Commission Act, and the revenues collected by the Commission from the partner municipalities and other consumers.

Cost of Power statement, which shows the apportionment to each municipality or rural power district of the items of cost summarized in the Operating Account, as well as the apportionment of the capital expenditures listed in the balance sheet and the amount of power taken by each municipality. It should be appreciated that the cost of power given in this table is the wholesale cost,—that is, the cost which the Commission receives for the power delivered from the main transformer stations serving the local utility or rural power district. In the case of rural power districts, the costs of power for the respective districts appear also in the "Rural Operating" statement, immediately following, as "Cost of power delivered"; in the case of municipal electrical utilities not directly administered by the Commission, the respective costs of power appear in Statement "B" of Section X as "Power purchased".*

Rural Operating statement, which shows for each rural power district the various items of cost, and the revenues received, in connection with the distribution of electrical energy to consumers.

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*Consult footnote on previous page.

Credit or Charge statement, which shows the adjustments made in order to bring the amounts paid by each municipal electric utility to the actual cost of service to that municipality. These credits and charges are taken up and given effect to in the municipal accounts of "Hydro" utilities before the operating records of each year are closed.

Reserve for Renewals, which shows the provisions made for, the expenditures from, and the balances to the credit of, this fund.

Reserve for Obsolescence and Contingencies, which gives similar information with respect to this reserve.

Sinking Fund statement, which gives the accumulated total of the amounts paid by each municipality and rural power district as part of the cost of power together with its proportionate share of other sinking funds.

Sinking Fund Reserve, which summarizes the provisions made with respect to this fund.

All municipal "Hydro" utilities have current expenses to meet similar to the expenses of the Commission and have adopted the same financial procedure with respect to their operations. In other words, concurrently with the creation of funds to liquidate their debt to the Commission and to provide the necessary reserve to protect generating, transforming, and transmission systems, the municipalities are taking similar action with respect to their local "Hydro" utility systems.

The balance sheets, operating reports and statistical data appearing in Section X, under the heading of "Municipal Accounts", relate to the operation of local distribution systems by individual municipalities which have contracted with the Commission for their supply of electrical energy. To this section there is an explanatory introduction to which the reader is specially referred.

To illustrate further the foregoing explanatory comments, there is presented herewith a typical operating statement of an Ontario municipal electrical utility, covering its financial operations, both as a partner in a system of The Hydro-Electric Power Commission, and as administrator of its own local distribution system.

BARRIE "HYDRO" UTILITY

A Typical Operating Statement for the year 1934

REVENUE

Collected from Barrie "Hydro" customers for year		$107,117.62

EXPENSES

A.—Incurred by the Hydro-Electric Power Commission on behalf of the municipality of Barrie in connection with the supplying of its electrical energy. These data show—as determined by annual adjustment—what it costs the Commission to supply the municipality with its wholesale power. See "Cost of Power" statement, page 208, *for the Town of Barrie as follows:*

Cost (proportionate share) of power purchased for Georgian Bay system from Niagara system	$4,047.11
Cost (proportionate share) of operation and maintenance expense of Georgian Bay system generating plants, transformer stations and transmission lines together with administrative expense	26,403.93

Interest, including exchange, on Barrie's proportionate share of capital investment in generating plants, transformer stations and transmission lines	25,213.65	
Renewals reserve (proportionate share) provided in respect of generating plants, transformer stations and transmission lines	6,520.27	
Obsolescence and contingencies reserve (proportionate share) provided in respect of generating plants, transformer stations and transmission lines	2,102.82	
Sinking Fund (proportionate share) provided for repayment of investment in generating plants, transformer stations and transmission lines	5,866.83	
Cost in excess of revenue from power sold to private companies* (proportionate share)	855.92	
	$71,010.53	

B.—Incurred by the municipality of Barrie through its utility commission in connection with the sale of electrical energy to consumers. Consult the section dealing with the Municipal Accounts:

Operation, maintenance and administrative expenses	$12,907.00	
Interest on debenture debt, etc.	2,574.43	
Sinking fund and principal payments on debentures	2,818.99	
Depreciation and other reserves	7,335.00	
	$25,635.42	
TOTAL EXPENSES		
Charged against revenue from customers of the Barrie system		$96,645.95
NET SURPLUS FOR THE YEAR		$ 10,471.67

The municipality of Barrie was connected to the Georgian Bay system in April, 1913. With the close of the twenty-first year of operation, this utility's total assets are $398,202.57, liabilities $42,792.85, and reserves and surplus, $355,409.72, as shown in the municipalities' balance sheets, in Section X, Statement "A".

By reference to this municipality's balance sheet, it will be noted that the Barrie "Hydro" utility has created a sinking fund equity amounting to $82,793.94 in the Hydro-Electric Power Commission system.

By reference to Statement "D" in Section X of this report it will be seen that under the low rate schedules prevailing throughout the Province, the rates in force in Barrie have resulted in *average costs*† to the various classes of service as follows: Domestic service (with an average monthly consumption per consumer of 117 kilowatt-hours) 1.9 cents per kilowatt-hour; commercial light service 2.1 cents per kilowatt-hour. The actual *rates in force* are presented in Statement "E" and particulars of street lighting service are given in Statement "C".

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*This represents the difference between the revenue received from private companies and other power customers operating under flat-rate contracts, and the result obtained by "costing" these loads on the same basis as that used in determining "costs" in respect of municipal contracts, including sinking fund and other reserves.

†If proper differentiation be made by those undertaking research, between the very different entities of rates on the one hand and the derived quantities of average costs or revenues on the other, a great deal of confusion and misrepresentation will be avoided. Consult introduction to Statement "D" of Section X.

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

Assets

Niagara System:			
Generating Plants:			
Queenston-Chippawa development		$76,879,215.68	
Ontario Power development, including water rights		22,032,921.20	
Toronto Power development, including water rights		11,522,014.50	
Chats Falls power development		6,197,129.25	
DeCew power development and steam plant, including water rights		11,824,824.64	
Transmission Lines:			
Right-of-way		8,450,953.70	
Steel-tower and wood-pole lines		25,975,739.58	
Transformer Stations		35,328,791.97	
		$198,211,590.52	
Distribution Lines:			
Rural power districts	$6,637,824.14		
Rural lines	20,057.52		
Local distribution systems	426,313.77		
		7,084,195.43	
			$205,295,785.95
Share capital of Hamilton Street Railway Company carried at a value of		$3,000,000.00	
Cash advances to Hamilton Street Railway Company to cover capital expenditures and for working capital		257,306.71	
			3,257,306.71
Radial Railways in vicinity of Hamilton in process of liquidation—balance expected to be recovered			88,364.98
Balances owing under agreements covering sales of certain properties, plants and equipment:			
By City of Hamilton		$1,687,500.00	
By City of Brantford	$116,000.00		
Accrued interest thereon	5,800.00		
		121,800.00	
By Canada Coach Lines, Limited		525,000.00	
		$2,334,300.00	
Shares (1,000) of First Preferred stock of Canada Coach Lines, Limited—at par—		100,000.00	
			2,434,300.00
Thunder Bay System:			
Nipigon generating plants		$15,692,141.67	
Transmission lines		1,917,425.17	
Transformer stations		1,011,474.97	
		$18,621,041.81	
Distribution lines:			
Rural power districts		58,568.92	
			18,679,610.73
Carried forward			$229,755,368.37

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS

LIABILITIES

To Province of Ontario:			
Cash advances for Niagara and other systems		$207,250,258.34	
Less: Repayment under provisions of Power Commission Act		19,421,015.06	$187,829,243.28
Grant funds in the hands of the Commission to apply against rural power districts in course of construction or extension		$33,729.78	
Less: Grants (or balances thereof) payable by the Province to the Commission in respect of certain rural power districts completed or under construction		2,701.23	31,028.55
Amounts received from the Province for the purpose of making loans under provisions of the Rural Power District Loans Act		$105,000.00	
Note: Loans made to October 31, 1934, $99,864.63.			
Less: Principal instalments on such loans collected to September 30, 1934, and repaid to the Province		35,596.21	
		69,403.79	
Interest on such loans collected in month of October, 1934, and available to be paid over to the Province		237.15	69,640.94
Debentures issued by the Commission and guaranteed by the Province of Ontario:			
Four per cent debentures, due 1957, issued in purchase of Ontario Power Company of Niagara Falls	$8,000,000.00		
Interest accrued thereon	80,000.00	$8,080,000.00	
Six per cent debentures, due 1941, issued for the purpose of retiring the 1921 issue of the Ontario Power Company of Niagara Falls	$3,200,000.00		
Interest accrued thereon	67,856.16	3,267,856.16	
Six per cent debentures, due 1940, issued in purchase of the Toronto Power Company, Limited	$413,200.00		
Interest accrued thereon	10,330.00	423,530.00	
Six per cent debentures, due 1940, issued in purchase of certain electrical power equipment of the Toronto and York Radial Railway	$205,800.00		
Interest accrued thereon	5,145.00	210,945.00	
Five per cent debentures, due 1939, issued for the purpose of retiring the 1924 issue of the Toronto Power Company Limited	4,000,000.00		
Interest accrued thereon	75,000.00	4,075,000.00	
Carried forward		$16,057,331.16	$187,929,912.77

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

Assets			
Brought forward			$229,755,368.37
Georgian Bay System:			
Generating plants		$3,768,540.81	
Transmission lines		2,585,120.36	
Transformer stations		1,156,066.78	
		$7,509,727.95	
Distribution lines:			
Rural power districts	$833,664.59		
Rural lines	2,807.43		
Local distribution systems	81,078.80		
		917,550.82	
			8,427,278.77
Eastern Ontario System:			
Generating plants, including water rights		$10,142,418.06	
Surveys and engineering re power sites:			
On St. Lawrence river	$734,873.31		
On Ottawa river	94,135.20		
		829,008.51	
Properties purchased for power sites		52,533.33	
Transmission lines		4,256,453.78	
Transformer stations		2,621,445.16	
Rural power districts	$1,670,248.11		
Local distribution systems:			
Electric	109,789.99		
Gas	26,466.13		
Rural lines	90,699.12		
Pulp Mill	52,559.93		
		1,949,763.28	
			19,851,622.12
Northern Ontario Properties—comprising the Nipissing, Wahnapitae, Abitibi-Sudbury, Patricia (Ear Falls), St. Josephs and Espanola Districts as follows:			
Nipissing District:			
Generating plant		$1,101,715.33	
Transmission lines		173,186.88	
Transformer stations		16,457.86	
		$1,291,360.07	
Rural power districts	$22,751.21		
Local distribution systems	378,105.68		
		400,856.89	
			1,692,216.96
Wahnapitae District:			
Properties, buildings, generating plants, equipment and water rights on Wanapitei river		$2,506,976.10	
Transmission lines		139,015.15	
Transformer stations		45,437.06	
		$2,691,428.31	
Local distribution systems		6,630.43	
			2,698,058.74
Abitibi-Sudbury District:			
Abitibi Canyon generating plant (uncompleted) and adjacent lines		$16,922,249.48	
Transmission lines (other than those included in item above)		2,698,768.15	
Transformer stations		501,852.42	
			20,122,870.05
Carried forward			$282,547,415.01

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS—Continued

Liabilities

Brought forward		$16,057,331.16	$187,929,912.77
Debentures issued by the Commission and guaranteed by the Province of Ontario—*Continued.*			
Four per cent debentures, due 1958, issued in purchase of distribution lines in Essex county	$200,000.00		
Interest accrued thereon	3,333.34		
		203,333.34	
Four per cent debentures, due 1958, issued in purchase of distribution lines in vicinity of Thorold	$100,000.00		
Interest accrued thereon	1,666.67		
		101,666.67	
Four and three-quarter per cent debentures, due 1970, issued in part purchase of undertakings and companies from Dominion Power and Transmission Company, Limited, as at January 1, 1930	$13,000,000.00		
Interest accrued thereon	206,397.00		
		13,206,397.00	
Five per cent debentures, due January 1st, 1935, issued in part purchase of undertakings and companies from Dominion Power and Transmission Company, Limited, as at January 1st, 1930	$8,000,000.00		
Interest accrued thereon	133,698.00		
		8,133,698.00	
Four and one-half per cent debentures, due 1938, issued to retire guaranteed debenture stock and other debentures	$9,000,000.00		
Interest accrued thereon	100,972.60		
		$9,100,972.60	
Twenty-year redeemable debentures maturing in 1952 and bearing interest at the rates of 3½% in first five years, 4% in next five years, 5% in last ten years, issued in purchase of bonds of Ontario Power Service Corporation Limited, which bonds were in turn surrendered in the purchase of the properties and assets of that Company	$17,626,950.00		
Interest accrued thereon	50,707.66		
		17,677,657.66	
			64,481,056.43
Carried forward			$252,410,969.20

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

ASSETS			
Brought forward			$282,547,415.01
Northern Ontario Properties—*Continued*			
Patricia District:			
Ear Falls generating plant			486,509.77
St. Joseph District:			
Generating plants		$91,293.44	
Transmission lines		50,977.16	
			142,270.60
Espanola District:			
Transmission lines			20,000.00
Manitoulin Rural Power District:			
Transformer station		$5,098.11	
Distribution lines		30,374.75	
			35,472.86
Bonnechere River Storage System:			
Round Lake dam			51,781.88
Service Buildings and Equipment:			
Service buildings and equipment, Toronto		$510,177.00	
Terminal building, Hamilton		750,000.00	
Equipment of storehouse and garage, Hamilton		3,666.40	
Pole yard and equipment, Cobourg		21,629.08	
			1,285,472.48
Office Buildings:			
On University avenue, Toronto (including expenditures to date on new building)		$803,784.93	
On corner Elm street and Centre avenue, Toronto		160,821.95	
			964,606.88
Office Furniture and Equipment:			
At Toronto office		$56,172.14	
At Electrical Inspection offices		4,279.35	
			60,451.49
Inventories:			
Construction and maintenance tools and equipment, including trucks and automobiles		$752,629.04	
Construction material and sundry supplies		831,680.10	
Maintenance material and supplies		529,904.46	
Stationery and office supplies		25,169.38	
			2,139,382.98
Sinking Funds:			
Employed to make repayments to the Province of Ontario under the terms of the Power Commission Act	$19,421,015.06		
Employed in retirement of bonds issued or assumed by the Commission and guaranteed by the Province of Ontario	8,792,501.20		
	$28,213,516.26		
Invested in securities of the Province of Ontario which stand:			
(a) Deposited with the Provincial Treasurer—par value, $2,401,000.00		$2,383,662.27	
(b) In the hands of the Commission—par value, $200,000.00		229,956.25	
Interest accrued thereon		34,916.68	
			2,648,535.20
Carried forward			$290,381,899.15

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS—Continued

LIABILITIES

Brought forward			$252,410,969.20
Bonds assumed by the Commission and guaranteed by the Province of Ontario:			
First mortgage 5% gold bonds, due 1943, of the Ontario Power Company of Niagara Falls:			
Amount assumed at date of purchase of Company by Commission, August 1, 1917	$9,834,000.00		
Less: Retired by the Commission	2,154,000.00		
	$7,680,000.00		
Interest accrued thereon	95,736.98		
		$7,775,736.98	
First mortgage 5% gold bonds, due 1945, of the Ontario Transmission Company, Limited:			
Amount assumed at date of purchase of Company by Commission, August 1, 1917	$1,772,000.00		
Less: Retired by the Commission	524,000.00		
	$1,248,000.00		
Interest thereon payable November 1, 1934	31,200.00		
		1,279,200.00	
Guaranteed 4½% debenture stock, due 1941, of the Toronto Power Company, Limited:			
Amount assumed at date of purchase of Company by Commission, December 1, 1920	$13,558,917.81		
Less: Retired by the Commission	13,552,566.82		
	$6,350.99		
Premium of 5% payable under terms of Trust Deed because of notice to retire before maturity	317.55		
		6,668.54	
First mortgage 5% gold bonds, due 1933, of the Electrical Development Company of Ontario, Limited:			
Amount assumed at date of purchase of Company by the Commission, December 1, 1920	$4,335,000.00		
Less: Retired by the Commission	4,334,500.00		
		500.00	
			9,062,105.52
Carried forward			$261,473,074.72

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

ASSETS

Brought forward		$290,381,899.15
Insurance Funds:		
(a) Invested in securities of the Dominion of Canada—par value $800,000.00	$800,000.00	
(b) Invested in securities of the Province of Ontario—par value, $28,000.00	28,666.14	
(c) Invested in securities of The Temiskaming and Northern Ontario Railway—guaranteed by the Province of Ontario—par value, $50,000.00	49,256.13	
Interest accrued thereon	1,118.35	
	$879,040.62	
(d) On deposit with Workmen's Compensation Board	45,848.40	
		924,889.02
Staff Pension Funds:		
(a) Invested in securities of the Province of Ontario—par value, $3,550,000.00	$3,531,068.86	
(b) Invested in securities of the Dominion of Canada—par value, $95,000.00	93,610.92	
(c) Invested in the securities of The Temiskaming and Northern Ontario Railway—guaranteed by the Province of Ontario—par value, $75,000.00	73,884.20	
Interest accrued thereon	41,331.04	
		3,739,895.02
Reserve Funds:		
(a) Invested in securities of the Province of Ontario—par value, $30,483,500.00	$30,171,282.34	
(b) Invested in securities of the Dominion of Canada—par value, $2,001,850.00	2,001,850.00	
(c) Invested in securities of the Canadian National Railways, guaranteed by the Dominion of Canada—par value, $50,000.00	52,563.53	
(d) Invested in securities of the Commission, guaranteed by the Province of Ontario—par value, $900,000.00	933,955.02	
(e) Invested in securities of The Temiskaming and Northern Ontario Railway, guaranteed by the Province of Ontario—par value, $240,000.00	207,561.83	
(f) Invested in debentures of Ontario municipalities, which debentures were received from certain municipalities upon the sale thereto of their local distribution systems—par value, $1,362,546.53	1,253,209.74	
Interest accrued thereon	425,972.50	
		35,046,394.96
Carried forward		$330,093,078.15

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS—Continued

LIABILITIES

Brought forward			$261,473,074.72
Other debentures assumed:			
In respect of purchase of original Muskoka power development:			
Amount assumed at date of purchase	$50,595.93		
Less: Retired by the Commission	36,980.63		
	$13,615.30		
Interest accrued thereon	531.41		
		$14,146.71	
In respect of purchase of sundry rural lines:			
Amount assumed at dates of purchase	$69,289.85		
Less: Retired by the Commission	41,022.42		
	$28,267.43		
Interest accrued thereon	693.09		
		28,960.52	
			43,107.23
Outstanding share capital of:			
Electrical Development Company of Ontario, Limited		$600.00	
Galetta Electric Power and Milling Company, Limited		580.00	
			1,180.00
Accounts payable		$832,834.23	
Balance owing on purchase price of Espanola transmission line		18,071.67	
Interest coupons due but not yet presented for payment		54,131.82	
			905,037.72
Insurance Department:			
Employees' outstanding claims and awards for accident compensation		$882,712.87	
Surplus		59,551.08	
			942,263.95
Reserve for Staff Pensions			3,747,898.58
Carried forward			$267,112,562.20

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

Assets			
Brought forward			$330,093,078.15
Other bonds and shares taken over with the plant assets of power companies acquired—carried at a value of		$22,113.00	
Interest accrued thereon		332.51	
			22,445.51
Cash:			
In banks		$1,025,709.83	
In banks to pay debenture stock and bonds overdue but not presented		7,168.54	
In banks to pay bond interest due November 1, 1934, and interest coupons overdue but not presented		85,331.82	
Sinking funds on deposit with trustees for bondholders		828.97	
In hands of employees as advances on account of expenses		67,812.22	
			1,186,851.38
Accounts Receivable:			
Due by municipalities and sundry customers in respect of construction work, supply sales, etc.	$286,345.47		
Less: Reserve for disputed and doubtful accounts	22,363.60		
		$263,981.87	
Due by Province of Ontario (various departments) in respect of construction work and other charges		157,803.02	
Due by municipalities and sundry customers in respect of power accounts	$4,110,837.38		
Less: Reserve for disputed and doubtful accounts	736,953.73		
		3,373,883.65	
Balance (including interest) owing by Province of Ontario in respect of the operation of the Northern Ontario Properties to October 31, 1934		168,686.63	
Sinking fund and interest accounts owing in respect of rural lines		2,341.92	
			3,966,697.09
Balances due by Municipalities—following the annual adjustment—in respect of power supplied to them up to October 31, 1934, in addition to the amounts charged to them by monthly interim bills:			
Niagara system		$315,720.23	
Thunder Bay system		85,231.66	
Georgian Bay system		75,203.73	
Eastern Ontario system		52,944.94	
Manitoulin rural power district		2,947.45	
			532,048.01
Carried forward			$335,801,120.14

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS—Continued

LIABILITIES

Brought forward		$267,112,562.20
Balances due to Municipalities—following the annual adjustment—in respect of power supplied to them up to October 31, 1934, in reduction of the amounts charged to them by monthly interim bills:		
Niagara system	$856,342.95	
Thunder Bay system	188.41	
Georgian Bay system	123,540.10	
Eastern Ontario system	234,974.99	
Nipissing rural power districts	10,175.96	
		1,225,222.41
Reserve for Sinking Fund:		
Niagara system	$27,539,414.02	
Niagara rural lines	11,627.32	
Thunder Bay system	1,251,553.24	
Georgian Bay system	1,062,474.58	
Georgian Bay rural lines	930.81	
Eastern Ontario system	1,281,767.77	
Nipissing rural power districts	935.15	
Manitoulin rural power district	670.39	
Bonnechere River storage system	5,417.39	
	$31,154,790.67	
Service buildings and equipment	130,786.01	
Office buildings	169,721.12	
		31,455,297.80
Reserve for Renewals:		
Niagara system	20,967,278.30	
Niagara rural lines	4,112.31	
Thunder Bay system	1,542,219.32	
Georgian Bay system	1,592,832.03	
Georgian Bay rural lines	593.99	
Eastern Ontario system	3,490,857.20	
Northern Ontario properties	615,186.49	
Nipissing rural power districts	4,792.48	
Manitoulin rural power district	3,407.35	
	$28,221,279.47	
Service buildings and equipment	328,185.88	
Office buildings	122,242.62	
		28,671,707.97
Carried forward		$328,464,790.38

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

POWER UNDER

ASSETS

Brought forward				$335,801,120.14
Rural Loans:				
Loans made to persons under provisions of the Rural Power District Loans Act in respect of purchases of, and installations of, electrical equipment			$99,864.63	
Deduct: Instalments of principal received			36,270.27	
			$63,594.36	
Interest instalments due			1,070.35	
Total amount receivable				64,664.71
Work in progress:				
Expenditures to date on purchase and installation and cost of equipment for water heaters installed in customers' premises		$481,542.10		
Water heater equipment in hands of Commission and on consignment with various municipalities		67,313.72		
Expenditures to date incidental to water heater campaign, including engineering, purchase and storage of equipment, administration, printing, advertising, etc.		96,436.39		
		$645,292.21		
Less: Portions written off against revenue in the period of eighteen months to October 31, 1934	$133.017.92			
Instalments received to October 31, 1934, on account of cost of booster heaters	5,760.68	138,778.60		
			506,513.61	
Uncompleted and unallocated expenditures, also other deferred items chargeable in the periods subsequent to October 31, 1934, to:				
(a) Capital construction		$5,167.25		
(b) Operating and maintenance expenses		52,707.66		
			57,874.91	
				564,388.52
Insurance unexpired				43,334.24
Discount and premium on Debentures issued by the Commission, less amounts written off:				
Discount on debenture issue of $3,200,000 maturing 1941			$52,002.81	
Discount on debenture issue of $4,000,000 maturing 1939			27,345.60	
			$79,348.41	
Premium on debenture issue of $9,000,000 maturing 1938			27,300.00	
				52,048.41
Total Power Undertakings				$336,525,556.02

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

TAKINGS—Continued

LIABILITIES

Brought forward		$328,464,790.38
Reserves for Obsolescence and Contingencies:		
Niagara system	$6,567,991.15	
Niagara rural lines	2,124.41	
Thunder Bay system	727,663.84	
Georgian Bay system	496,808.14	
Georgian Bay rural lines	259.32	
Eastern Ontario system	1,211,725.38	
Northern Ontario properties	253,422.39	
Nipissing rural power districts	1,790.77	
Manitoulin rural power district	1,117.89	
		9,262,903.29
Balance at credit of interest account		21,053.56

Contingent Liabilities:

In respect of contracts amounting to $1,122,542.56 entered into for power undertakings and office building in course of construction—but exclusive of substantial amounts of contractors' claims in respect of the Abitibi Canyon development and lines, the liability under which had not, at October 31, 1934, been determined.

Total Power Undertakings	$337,748,747.23

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

RADIAL RAILWAY

Assets			
Brought forward			$336,525,556.02
Guelph Radial Railway:			
Road and equipment		$444,372.73	
Materials and supplies		6,099.65	
Reserve funds:			
(a) Invested in securities of the Province of Ontario—par value, $25,000.00	$22,571.96		
(b) Invested in securities of the Dominion of Canada—par value, $25,000.00	24,801.17		
Interest accrued thereon	1,058.95		
		48,432.08	
Cash:			
In bank at Guelph	$1,473.05		
In hands of employees as advances on account of expenses	900.00		
		2,373.05	
Accounts receivable, less reserve for doubtful accounts		944.71	
Insurance and expenses prepaid		1,006.13	
Due by the City of Guelph:			
Operating deficit for the year ending October 31, 1934—as per Operating Account		32,607.39	
			535,835.74
Carried forward			$337,061,391.76

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

UNDERTAKINGS

LIABILITIES

Brought forward			$337,748,747.23
In respect of the Guelph Radial Railway:			
City of Guelph—purchase price of the Railway payable thereto, in half-yearly instalments according to purchase agreement	$150,000.00		
Less: Twenty-seven instalments thereon	90,586.70	$59,413.30	
Debentures issued by the Commission and guaranteed by the Province:			
Five per cent debentures due 1970, issued to retire $300,000.00 of debentures which matured in 1931 and which had been issued for the purpose of making extensions and betterments to the railway	$300,000.00		
Interest accrued thereon	7,500.00	307,500.00	
Instalments of principal and interest payable to the City of Guelph, May 1, and November 1, 1934, under the terms of the purchase agreement		11,700.00	
Accounts payable and accrued charges	$196.59		
Provision for unredeemed tickets	1,300.00	1,496.59	
Premium on sale of debentures—less portion written off		21,003.64	
Reserve—created by payment of instalments on the purchase price out of the revenue of the road and assessments against the City of Guelph		90,586.70	
Reserve for sinking fund		11,637.86	
Reserve for renewal of road and equipment		32,497.65	535,835.74

In respect of the Sandwich, Windsor and Amherstburg Railway: The Commission having—on the advice of its Solicitors—decided that the bonds of $5,816,205, issued by it between 1920 and 1926 (and guaranteed by the Province of Ontario), under the provisions of the Hydro-Electric Railway Act, in purchase of the Sandwich, Windsor and Amherstburg Railway and to make extensions and betterments thereto, ceased to be a liability of the Commission upon the passing of the Sandwich, Windsor and Amherstburg Railway Act in 1930 and upon the transfer of the Railway to the Sandwich, Windsor and Amherstburg Railway Company in 1931, such bonds have not been extended as a liability in this Balance Sheet.

Carried forward	$338,284,582.97

HYDRO-ELECTRIC POWER

Detailed Statement of Assets

RADIAL RAILWAY

ASSETS		
Brought forward		$337,061,391.76
Toronto and York Radial Railway:		
City of Toronto debentures held as collateral security for the repayment of the Hydro Radial debentures issued in purchase of the Toronto and York Radial Railway—as per agreement covering the transfer (in January, 1927) of the railway to the City of Toronto	$2,375,000.00	
City of Toronto—interest accrued on $2,375,000.00 debentures issued by the Commission in purchase of the Toronto and York Radial Railway	59,375.00	
		2,434,375.00
Port Credit to St. Catharines Radial Railway:		
Purchase of right-of-way and carrying charges (taxes, less rental revenue) down to October 31. 1934	$73,604.22	
Construction materials purchased, less amount realized on sale thereof	117,510.09	
Surveying, engineering, administrative expenses and interest	429,582.54	
		620,696.85
Toronto to Port Credit Radial Railway:		
Purchase of right-of-way and carrying charges (taxes, less rental revenue) down to October 31, 1934—less amounts realized on properties sold	$498,409.58	
Surveying, engineering, administrative expenses and interest	604,084.78	
		1,102,494.36
TOTAL		$341,218,957.97

COMMISSION OF ONTARIO

and Liabilities, October 31, 1934

UNDERTAKINGS—Continued.

LIABILITIES

Brought forward		$338,284,582.97
In respect of Toronto and York Radial Railway:		
Debentures issued by the Commission and guaranteed by the Province of Ontario:		
Six per cent debentures, due 1940, issued in purchase of the Metropolitan, Scarboro and Mimico Radial Railway divisions	$2,375,000.00	
Interest accrued thereon	59,375.00	
		2,434,375.00
In respect of the Port Credit to St. Catharines Radial Railway:		
Bank of Montreal—advances (Secured by hypothecation of $1,200,000. Hydro Radial debentures, being part of an issue of $11,360,363 guaranteed by the Province of Ontario.)		500,000.00
TOTAL		$341,218,957.97

NIAGARA

Operating Account for the

COSTS OF OPERATION AS PROVIDED UNDER THE TERMS OF THE POWER COMMISSION ACT

Power purchased		$6,872,793.14
Costs of operation and maintenance, including the proportion of administrative expenses chargeable to the operation of this system:		
Generation and transmission equipment	$4,292,313.92	
Rural power districts	529,535.07	
		4,821,848.99
Interest (including exchange thereon) on capital investment in:		
Generation and transmission equipment	$9,836,248.24	
Rural power districts	301,774.53	
		10,138,022.77
Provision for renewals of:		
Generation and transmission equipment	$1,368,136.58	
Rural power districts	259,028.24	
		1,627,164.82
Provision for obsolescence and contingencies in respect of:		
Rural power districts	$ 129,514.12	
		129,514.12
Provision for sinking funds for repayment of the cash advances by the Province of Ontario to the Commission and for the retirement of the bonds issued by and assumed by the Commission:		
By charges included in the cost of power delivered to municipalities and rural power districts	$1,454,491.20	
By charges against contracts with private companies which purchased power and local distribution systems	463,860.08	
By charges included in the cost of distribution of power within rural power districts	68,856.46	
		1,987,207.74
Total costs of operation		$25,576,551.58
Deduct:		
Cost to the Commission (including provisions for sinking fund $463,860.08 and renewals $305,620.76) of power delivered to private companies and customers under flat rate contracts, in excess of the revenue received from them—which excess has been charged against the contingency reserve of the system	$1,348,697.11	
Amount appropriated from the contingency reserve of the system and applied proportionately to each municipality in reduction of the costs of operation	1,521,131.25	
		2,869,828.36
		$22,706,723.22

SYSTEM

Year Ending October 31, 1934

Revenue for period

Amounts received from (or billed against) each municipality by the Commission	$15,742,616.49	
Power sold to private companies and customers, also miscellaneous revenue	4,644,928.05	
Amounts received from (or billed against) customers in rural power districts	2,080,385.53	
Power supplied at cost to Sandwich, Windsor & Amherstburg Railway Company and Windsor, Essex & Lake Shore Radial Railway Association	75,850.56	$22,543,780.63
Add:		
Amounts due by certain municipalities, being the difference between the sums received (or billed) at interim monthly rates and the amounts charged—following annual adjustment—in respect of power supplied in the year	$ 198,002.18	
Amounts due by municipalities comprising certain rural power districts, being the difference between the sums received from (or billed against) customers therein and the amounts charged to such districts—following annual adjustment—in respect of power supplied in the year	84,014.77	282,016.95
		$22,825,797.58
Deduct:		
Amounts received from (or billed against) certain municipalities at interim monthly rates in excess of the amounts charged—following annual adjustment— in respect of power supplied in the year	$ 74,895.33	
Amounts received from (or billed against) customers in certain rural power districts in excess of the amounts charged to such districts—following annual adjustment —in respect of power supplied in the year	44,179.03	119,074.36
Revenue		$22,706,723.22
		$22,706,723.22

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Acton	33.00	33.00	285,745.45	989.6	8,310.48	6,652.01	13,973.89
Agincourt	40.00	40.00	48,713.91	138.9	1,166.46	1,316.13	2,356.39
Ailsa Craig	48.00	51.00	34,357.03	84.9	712.98	1,653.07	1,595.72
Alvinston	90.00	90.00	60,476.87	74.9	629.00	2,315.81	2,799.45
Amherstburg	38.00	38.00	189,187.50	596.2	5,006.78	5,183.54	9,162.70
Ancaster twp.	30.00	32.00	62,134.66	231.5	1,944.10	1,678.06	3,049.59
Arkona	75.00	75.00	30,662.48	49.3	414.01	1,419.31	1,445.50
Aylmer	35.00	36.00	136,895.58	455.9	3,828.57	3,950.14	6,626.92
Ayr	34.00	35.00	47,612.52	168.1	1,411.67	1,627.57	2,314.48
Baden	32.00	33.00	74,288.21	262.0	2,200.23	1,832.88	3,572.48
Beachville	33.00	33.00	106,663.13	379.1	3,183.61	2,993.98	5,156.32
Belle River	38.00	40.00	39,093.54	120.1	1,008.58	1,265.27	1,893.59
Blenheim	39.00	39.00	113,600.97	353.4	2,967.79	3,791.85	5,467.78
Blyth	58.00	56.00	40,026.21	88.3	741.53	1,429.31	1,905.72
Bolton	44.00	44.00	44,371.93	124.9	1,048.89	1,749.25	2,099.61
Bothwell	45.00	47.00	35,676.38	99.0	831.38	1,602.48	1,676.63
Brampton	30.00	31.50	515,790.86	2,023.7	16,994.67	15,218.66	25,272.55
Brantford	27.00	27.00	2,981,558.72	12,608.9	105,887.29	65,925.75	146,714.09
Brantford twp.	30.00	32.00	141,116.61	567.8	4,768.28	4,971.83	6,990.07
Bridgeport	36.00	36.00	29,797.22	95.5	801.99	1,014.18	1,434.79
Brigden	65.00	65.00	36,614.71	67.5	566.85	1,499.20	1,713.52
Brussels	54.00	54.00	47,156.23	109.9	922.92	1,621.42	2,243.81
Burford	35.00	35.00	39,845.77	139.2	1,168.98	1,049.05	1,931.98
Burgessville	50.00	55.00	13,891.17	31.0	260.33	749.84	652.25
Caledonia	29.00	32.00	70,914.94	260.7	2,189.31	1,739.23	3,458.66
Campbellville	60.00	60.00	12,243.83	25.4	213.30	713.69	538.63
Cayuga	48.00	48.00	44,853.56	100.3	842.30	1,503.10	2,142.36
Chatham	30.00	31.00	1,097,311.58	4,109.0	34,506.65	28,236.13	53,411.36
Chippawa	25.00	25.00	47,255.26	225.8	1,896.23	1,399.78	2,349.10
Clifford	59.00	60.00	28,444.77	56.5	474.48	880.41	1,348.62
Clinton	38.00	39.00	141,406.35	436.3	3,663.97	4,230.80	6,802.36
Comber	50.00	50.00	55,570.32	141.2	1,185.77	2,156.38	2,636.70
Cottam	44.00	44.00	21,136.03	56.1	471.12	832.38	1,020.37
Courtright	72.00	75.00	21,988.47	37.4	314.08	879.96	1,033.27
Dashwood	50.00	53.00	16,541.11	38.3	321.64	672.85	765.96
Delaware	38.00	38.00	10,915.62	39.4	330.87	663.45	533.37
Dorchester	38.00	42.00	26,621.54	78.5	659.23	1,143.22	1,281.78
Drayton	58.00	60.00	43,035.53	86.7	728.09	1,493.43	2,031.24
Dresden	45.00	45.00	97,404.03	273.9	2,300.16	3,266.40	4,660.52
Drumbo	45.00	43.00	19,361.53	57.3	481.20	865.90	925.99

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,407.54	2,777.51	34,121.43	2,474.00	31,647.43	32,656.23	1,008.80	......
437.92	480.46	5,757.36	347.25	5,410.11	5,554.95	144.84	......
348.21	338.37	4,648.35	212.25	4,436.10	4,287.41	......	148.69
758.25	617.79	7,120.30	187.25	6,933.05	6,741.00	......	192.05
1,654.40	1,852.85	22,860.27	1,490.50	21,369.77	22,654.61	1,284.84	......
495.24	600.03	7,767.02	578.75	7,188.27	7,316.23	127.96	......
362.98	311.13	3,952.93	123.25	3,829.68	3,699.97	......	129.71
1,179.67	1,332.68	16,917.98	1,139.75	15,778.23	16,320.02	541.79	......
393.99	461.59	6,209.30	420.25	5,789.05	5,854.98	65.93	......
614.60	720.98	8,941.17	655.00	8,286.17	8,604.28	318.11	......
877.68	1,034.55	13,246.14	947.75	12,298.39	12,509.74	211.35	......
348.02	383.58	4,899.04	300.25	4,598.79	4,762.12	163.33	......
1,015.39	1,113.65	14,356.46	883.50	13,472.96	13,781.66	308.70	......
430.29	400.85	4,907.70	220.75	4,686.95	4,980.42	293.47	......
422.77	436.29	5,756.81	312.25	5,444.56	5,497.03	52.47	......
342.25	352.54	4,805.28	247.50	4,557.78	4,615.57	57.79	......
3,877.66	4,958.53	66,322.07	5,059.25	61,262.82	63,259.43	1,996.61	......
22,326.55	28,621.10	369,474.78	31,522.25	337,952.53	331,861.76	......	6,090.77
1,037.29	1,353.18	19,120.65	1,419.50	17,701.15	17,966.70	265.55	......
258.04	286.66	3,795.66	238.75	3,556.91	3,436.44	......	120.47
416.82	369.74	4,566.13	168.75	4,397.38	4,385.29	......	12.09
495.62	470.86	5,754.63	274.75	5,479.88	5,936.85	456.97	......
333.14	387.06	4,870.21	348.00	4,522.21	4,872.83	350.62	......
149.30	139.01	1,950.73	77.50	1,873.23	1,672.44	......	200.79
571.78	685.60	8,644.58	651.75	7,992.83	8,201.11	208.28	......
120.03	112.31	1,697.96	63.50	1,634.46	1,522.50	......	111.96
483.62	448.78	5,420.16	250.75	5,169.41	4,814.80	......	354.61
8,451.54	10,594.68	135,200.36	10,272.50	124,927.86	126,572.47	1,644.61	......
295.46	444.84	6,385.41	564.50	5,820.91	5,645.13	......	175.78
317.84	286.32	3,307.67	141.25	3,166.42	3,381.80	215.38	......
1,280.28	1,387.06	17,364.47	1,090.75	16,273.72	16,455.84	182.12	......
558.46	552.16	7,089.47	353.00	6,736.47	7,060.38	323.91	......
205.71	209.46	2,739.04	140.25	2,598.79	2,466.53	......	132.26
256.49	222.79	2,706.59	93.50	2,613.09	2,783.52	170.43	......
173.36	164.07	2,097.88	95.75	2,002.13	2,007.05	4.92	......
88.41	105.67	1,721.77	98.50	1,623.27	1,495.90	......	127.37
249.02	261.68	3,594.93	196.25	3,398.68	3,237.50	......	161.18
478.53	432.89	5,164.18	216.75	4,947.43	5,168.44	221.01	......
927.39	961.67	12,116.14	684.75	11,431.39	12,327.26	895.87	......
180.68	189.89	2,643.66	143.25	2,500.41	2,483.66	......	16.75

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each by the Commission; the amount appropriated from the contingency cost; the amount received by the Commission from each charged to each Municipality in respect of power

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Dublin	58.00	59.00	17,083.98	34.5	289.72	883.69	802.24
Dundas	25.00	27.00	335,925.68	1,407.6	11,820.77	6,610.05	16,409.63
Dunnville	34.00	32.00	219,634.41	777.8	6,531.83	4,867.23	10,724.03
Dutton	38.00	38.00	58,833.95	203.9	1,712.32	2,297.77	2,851.73
East Windsor	31.00	32.00	717,207.95	2,499.0	20,986.16	17,690.87	34,846.37
Elmira	34.00	36.00	183,794.29	596.3	5,007.62	5,795.26	8,790.25
Elora	35.00	36.00	84,507.93	265.3	2,227.94	2,852.43	4,022.94
Embro	48.00	48.00	32,831.81	92.9	780.16	1,187.46	1,565.42
Erieau	56.00	56.00	32,064.06	74.0	621.44	1,271.32	1,536.42
Erie Beach	70.00	70.00	6,604.73	13.2	110.85	447.26	313.48
Essex	35.00	36.00	110,638.41	347.8	2,920.76	2,834.13	5,360.49
Etobicoke twp.	28.00	28.00	864,412.73	3,518.9	29,551.09	19,317.45	42,884.96
Exeter	38.00	39.00	132,725.68	398.9	3,349.89	4,664.56	6,330.42
Fergus	35.00	36.00	229,768.99	738.0	6,197.59	6,752.66	11,168.09
Fonthill	36.00	36.00	29,608.30	117.5	986.74	1,089.84	1,468.17
Forest	48.00	48.00	122,892.76	316.9	2,661.27	4,539.08	5,887.14
Galt	27.00	27.00	1,370,716.63	5,544.9	46,565.08	33,396.81	66,911.19
Georgetown	35.00	37.00	321,218.31	1,011.8	8,496.92	7,709.09	15,500.15
Glencoe	58.00	58.00	75,947.20	159.0	1,335.25	2,892.76	3,598.52
Goderich	42.00	43.00	366,138.87	1,005.1	8,440.65	10,906.28	17,473.07
Granton	50.00	53.00	23,801.35	59.3	497.99	1,372.38	1,121.37
Guelph	28.00	28.00	1,913,873.18	7,802.0	65,519.80	44,076.19	93,923.61
Hagersville	31.00	33.00	182,369.67	594.2	4,989.99	3,574.67	8,718.84
Hamilton	24.50	24.50	19,325,788.79	86,484.8	726,283.92	384,636.12	966,168.06
Harriston	44.00	44.00	102,039.45	282.6	2,373.22	3,221.29	4,875.95
Harrow	38.00	39.00	108,075.43	323.0	2,712.50	3,026.69	5,245.55
Hensall	50.00	52.00	61,339.37	139.0	1,167.30	2,229.40	2,899.28
Hespeler	29.00	29.00	416,688.18	1,675.6	14,071.39	10,483.75	20,573.82
Highgate	48.00	47.00	24,478.14	65.9	553.42	937.67	1,159.34
Humberstone	28.00	29.00	83,807.22	330.7	2,777.16	1,856.08	4,140.76
Ingersoll	28.00	29.00	507,927.34	1,925.0	16,165.81	12,595.93	24,732.41
Jarvis	38.00	40.00	52,742.92	137.1	1,151.34	1,439.83	2,522.00
Kingsville	38.00	38.00	141,675.03	420.1	3,527.92	4,201.61	6,831.34
Kitchener	27.00	27.00	3,843,652.87	15,642.9	131,366.28	79,601.82	188,815.72
Lambeth	42.00	42.00	34,078.56	104.7	879.25	1,427.44	1,644.92
LaSalle	35.00	35.00	53,604.42	172.8	1,451.14	1,790.17	2,605.74
Leamington	37.00	37.00	363,516.65	1,079.8	9,067.97	10,211.68	17,629.10
Listowel	37.00	37.00	254,025.98	828.4	6,956.76	7,687.53	12,306.36
London	26.00	26.00	6,963,438.63	29,055.4	244,002.07	149,632.89	342,620.25
London Railway Commission	....	....	289,154.08	944.4	7,930.90	10,098.58	13,763.97

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
189.82	171.83	2,337.30	86.25	2,251.05	2,031.33		219.72
2,382.49	3,207.22	40,430.16	3,519.00	36,911.16	37,516.95	605.79	
1,865.01	2,131.00	26,119.10	1,944.50	24,174.60	25,186.19	1,011.59	
493.06	571.79	7,926.67	509.75	7,416.92	7,749.11	332.19	
5,797.34	6,968.33	86,289.07	6,247.50	80,041.57	79,529.28		512.29
1,619.65	1,795.88	23,008.66	1,490.75	21,517.91	21,288.74		229.17
763.12	827.20	10,693.63	663.25	10,030.38	9,500.36		530.02
314.59	323.36	4,170.99	232.25	3,938.74	4,459.60	520.86	
336.83	320.35	4,086.36	185.00	3,901.36	4,142.11	240.75	
73.37	66.46	1,011.42	33.00	978.42	925.71		52.71
969.22	1,083.76	13,168.36	869.50	12,298.86	12,457.99	159.13	
6,192.63	8,279.38	106,225.51	8,797.25	97,428.26	98,528.71	1,100.45	
1,212.14	1,292.35	16,849.36	997.25	15,852.11	15,495.06		357.05
2,044.50	2,246.10	28,408.94	1,845.00	26,563.94	26,445.06		118.88
228.55	284.32	4,057.62	293.75	3,763.87	4,229.40	465.53	
1,221.57	1,219.87	15,528.93	792.25	14,736.68	15,209.60	472.92	
10,009.56	13,137.83	170,020.47	13,862.25	156,158.22	149,713.47		6,444.75
2,897.96	3,146.06	37,750.18	2,529.50	35,220.68	37,094.36	1,873.68	
829.54	762.58	9,418.65	397.50	9,021.15	9,222.92	201.77	
3,555.38	3,620.60	43,995.98	2,512.75	41,483.23	41,795.07	311.84	
241.50	235.14	3,468.38	148.25	3,320.13	3,104.75		215.38
13,897.20	18,330.42	235,747.22	19,505.00	216,242.22	218,455.84	2,213.62	
1,614.42	1,781.02	20,678.94	1,485.50	19,193.44	19,462.75	269.31	
128,445.31	183,309.25	2,388,842.66	216,212.00	2,172,630.66	2,118,878.73		53,751.93
986.05	1,008.47	12,464.98	706.50	11,758.48	12,435.93	677.45	
980.04	1,062.57	13,027.35	807.50	12,219.85	12,547.15	327.30	
648.83	609.23	7,554.04	347.50	7,206.54	7,176.10		30.44
3,061.90	3,996.15	52,187.01	4,189.00	47,998.01	48,591.83	593.82	
238.78	242.36	3,131.57	164.75	2,966.82	3,107.11	140.29	
642.81	804.84	10,221.65	826.75	9,394.90	9,529.68	134.78	
3,951.16	4,898.55	62,343.86	4,812.50	57,531.36	55,481.15		2,050.21
532.12	522.94	6,168.23	342.75	5,825.48	5,433.76		391.72
1,291.31	1,393.68	17,245.86	1,050.25	16,195.61	15,963.32		232.29
27,814.84	36,814.94	464,413.60	39,107.25	425,306.35	422,356.91		2,949.44
311.02	334.21	4,596.84	261.75	4,335.09	4,398.10	63.01	
461.06	524.07	6,832.18	432.00	6,400.18	6,047.92		352.26
3,308.63	3,574.88	43,792.26	2,699.50	41,092.76	39,951.28		1,141.48
2,213.85	2,481.33	31,645.83	2,071.00	29,574.83	30,649.03	1,074.20	
48,895.64	66,488.78	851,639.63	72,638.50	779,001.13	755,439.07		23,562.06
2,532.25	2,822.81	37,148.51	2,361.00	34,787.51	27,931.72		6,855.79

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
London twp	34.00	34.00	99,056.72	354.0	2,972.83	3,312.33	4,849.12
Long Branch	30.00	30.00	177,644.71	687.4	5,772.66	3,955.29	8,857.11
Lucan	37.00	38.00	40,222.19	134.8	1,132.03	1,805.14	1,905.43
Lynden	40.00	40.00	25,868.73	83.0	697.02	904.15	1,224.22
Markham	43.00	43.00	70,735.17	227.4	1,909.66	3,385.92	3,433.52
Merlin	45.00	48.00	27,970.44	71.7	602.12	1,003.99	1,318.04
Merritton	23.00	23.00	665,306.67	3,288.4	27,615.40	14,970.58	33,715.59
Milton	34.00	35.00	187,610.19	642.1	5,392.24	6,419.52	8,874.95
Milverton	35.00	36.00	76,280.13	243.7	2,046.55	2,079.46	3,593.51
Mimico	26.00	26.00	485,194.07	2,075.8	17,432.20	10,404.49	24,030.24
Mitchell	33.00	33.00	124,704.89	439.0	3,686.64	4,175.66	6,042.15
Moorefield	61.00	65.00	19,639.29	37.3	313.24	794.14	911.38
Mount Brydges	42.00	42.00	28,361.28	94.0	789.40	1,421.04	1,378.73
Newbury	54.00	54.00	17,760.22	41.2	345.99	677.31	845.93
New Hamburg	35.00	35.00	125,396.16	412.9	3,467.46	3,261.54	6,022.89
New Toronto	30.00	30.00	1,300,325.87	5,010.3	42,075.61	28,267.45	63,622.85
Niagara Falls	19.00	19.00	1,600,184.56	8,562.2	71,903.83	29,813.85	80,515.02
Niagara-on-the-Lake	27.00	27.00	105,041.66	498.0	4,182.12	2,816.61	5,256.90
Norwich	34.00	35.00	94,269.72	313.4	2,631.88	3,164.92	4,532.03
Oil Springs	45.00	44.00	63,246.88	170.9	1,435.19	2,106.64	2,999.03
Otterville	45.00	46.00	29,924.53	78.7	660.91	1,267.44	1,431.68
Palmerston	40.00	40.00	136,120.10	419.8	3,525.41	4,290.45	6,556.54
Paris	28.00	28.00	281,393.75	1,129.5	9,485.34	7,023.89	13,719.78
Parkhill	62.00	62.00	66,592.63	125.3	1,052.25	2,747.60	3,113.54
Petrolia	40.00	40.00	283,889.25	842.1	7,071.80	8,800.01	13,587.78
Plattsville	55.00	55.00	24,299.95	55.8	468.60	1,042.44	1,143.27
Point Edward	40.00	40.00	200,963.43	692.7	5,817.17	8,248.60	9,813.68
Port Colborne	29.00	29.00	314,194.66	1,239.8	10,411.62	6,863.49	15,443.48
Port Credit	33.00	34.00	151,954.11	556.4	4,672.55	4,848.62	7,454.02
Port Dalhousie	30.00	30.00	130,036.92	530.0	4,450.85	3,962.14	6,433.39
Port Dover	40.00	40.00	94,899.43	289.7	2,432.85	2,646.91	4,594.04
Port Rowan	62.00	62.00	28,791.84	57.8	485.39	1,079.11	1,357.66
Port Stanley	40.00	40.00	124,378.23	384.3	3,227.28	3,724.50	5,888.33
Preston	27.00	27.00	558,641.43	2,296.5	19,285.60	13,665.86	27,132.87
Princeton	50.00	50.00	38,284.15	100.4	843.14	1,616.91	1,835.59
Queenston	29.00	29.00	19,818.16	87.7	736.49	635.40	981.33
Richmond Hill	36.00	35.00	86,708.63	295.4	2,480.72	2,624.80	4,248.97
Ridgetown	38.00	38.00	128,078.19	403.3	3,386.84	4,361.73	6,174.22
Riverside	33.00	34.00	326,335.77	1,059.1	8,894.13	7,057.92	15,864.54
Rockwood	42.00	42.00	31,630.64	88.5	743.21	835.41	1,509.38

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
799.47	953.04	12,886.79	885.00	12,001.79	12,036.53	34.74	
1,341.58	1,709.89	21,636.53	1,718.50	19,918.03	20,621.00	702.97	
340.67	388.33	5,571.60	337.00	5,234.60	5,099.70		134.90
231.42	252.94	3,309.75	207.50	3,102.25	3,319.30	217.05	
580.53	690.85	10,000.48	568.50	9,431.98	9,778.17	346.19	
279.88	277.79	3,481.82	179.25	3,302.57	3,400.49	97.92	
3,890.32	6,236.01	86,427.90	8,221.00	78,206.90	75,632.21		2,574.69
1,576.22	1,816.00	24,078.93	1,605.25	22,473.68	22,359.86		113.82
674.55	746.30	9,140.37	609.25	8,531.12	8,727.94	196.82	
3,282.17	4,623.77	59,772.87	5,189.50	54,583.37	53,971.20		612.17
1,024.45	1,210.57	16,139.47	1,097.50	15,041.97	14,486.25		555.72
219.41	195.74	2,433.91	93.25	2,340.66	2,396.71	56.05	
245.71	276.52	4,111.40	235.00	3,876.40	3,948.70	72.30	
186.15	177.38	2,232.76	103.00	2,129.76	2,227.05	97.29	
1,093.45	1,223.84	15,069.18	1,032.25	14,036.93	14,451.49	414.56	
9,861.56	12,521.22	156,348.69	12,525.75	143,822.94	150,308.00	6,485.06	
8,326.79	14,849.20	205,408.69	21,405.50	184,003.19	162,682.45		21,320.74
665.84	991.06	13,912.53	1,245.00	12,667.53	13,447.09	779.56	
816.64	919.18	12,064.65	783.50	11,281.15	10,917.30		363.85
613.34	625.97	7,780.17	427.25	7,352.92	7,549.90	196.98	
298.89	296.65	3,955.57	196.75	3,758.82	3,606.35		152.47
1,232.79	1,335.26	16,940.45	1,049.50	15,890.95	16,792.59	901.64	
2,073.05	2,698.59	35,000.65	2,823.75	32,176.90	31,625.46		551.44
752.31	666.66	8,332.36	313.25	8,019.11	7,770.60		248.51
2,605.70	2,792.24	34,857.53	2,105.25	32,752.28	34,622.09	1,869.81	
257.67	242.25	3,154.23	139.50	3,014.73	3,066.21	51.48	
1,654.80	1,953.96	27,488.21	1,731.75	25,756.46	27,706.63	1,950.17	
2,409.90	3,017.38	38,145.87	3,099.50	35,046.37	35,955.36	908.99	
1,218.31	1,470.09	19,663.59	1,391.00	18,272.59	18,811.56	538.97	
969.45	1,245.36	17,061.19	1,325.00	15,736.19	15,900.75	164.56	
873.11	931.71	11,478.62	724.25	10,754.37	11,586.30	831.93	
319.41	287.79	3,529.36	144.50	3,384.86	3,586.14	201.28	
1,098.58	1,196.49	15,135.18	960.75	14,174.43	15,371.97	1,197.54	
4,009.66	5,345.81	69,439.80	5,741.25	63,698.55	62,004.78		1,693.77
382.01	378.63	5,056.28	251.00	4,805.28	5,020.78	215.50	
137.06	188.42	2,678.70	219.25	2,459.45	2,542.54	83.09	
677.82	843.90	10,876.21	738.50	10,137.71	10,393.61	255.90	
1,135.30	1,254.43	16,312.52	1,008.25	15,304.27	15,324.60	20.33	
2,792.75	3,188.86	37,798.20	2,647.75	35,150.45	35,814.44	663.99	
306.51	312.40	3,706.91	221.25	3,485.66	3,716.65	230.99	

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each by the Commission; the amount appropriated from the contingency cost; the amount received by the Commission from each charged to each Municipality in respect of power

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Rodney	45.00	48.00	46,855.77	117.5	986.74	2,242.23	2,237.57
St. Catharines	23.00	23.00	1,752,960.89	8,621.9	72,405.18	39,048.65	87,821.96
St. Clair Beach	38.00	40.00	20,303.43	58.9	494.63	547.06	974.07
St. George	42.00	42.00	45,288.28	141.9	1,191.65	1,565.64	2,185.95
St. Jacobs	32.00	34.00	43,085.22	152.6	1,281.51	1,479.95	2,092.92
St. Marys	34.00	36.00	368,601.33	1,304.3	10,953.28	13,397.29	17,848.91
St. Thomas	28.00	28.00	1,448,690.30	5,963.2	50,077.89	38,644.20	71,237.40
Sandwich	32.00	32.00	813,438.32	2,718.7	22,831.16	17,678.68	39,508.44
Sarnia	34.00	34.00	2,129,661.85	7,250.7	60,890.08	53,200.15	103,564.63
Scarboro twp.	32.00	32.00	779,953.76	2,724.5	22,879.86	16,787.36	38,227.22
Seaforth	35.00	35.00	132,142.70	435.3	3,655.57	3,795.70	6,303.62
Simcoe	31.00	31.00	395,604.16	1,504.7	12,636.20	9,499.19	19,477.89
Springfield	48.00	50.00	25,553.52	57.3	481.20	1,012.21	1,202.63
Stamford twp.	21.00	21.00	319,374.69	1,695.8	14,241.03	6,727.34	16,108.32
Stouffville	46.00	46.00	72,204.86	182.7	1,534.28	2,555.21	3,408.92
Stratford	30.00	30.00	1,673,977.90	6,490.7	54,507.74	42,518.49	81,693.07
Strathroy	34.00	34.00	255,617.72	913.3	7,669.73	7,184.26	12,417.70
Sutton	55.00	55.00	74,691.01	170.9	1,435.19	2,917.85	3,574.94
Tavistock	37.00	37.00	144,722.26	481.1	4,040.19	4,010.73	7,014.64
Tecumseh	37.00	38.00	87,835.99	264.4	2,220.38	2,141.64	4,237.96
Thamesford	40.00	40.00	53,549.16	168.1	1,411.67	1,682.67	2,578.46
Thamesville	42.00	41.00	50,517.09	162.4	1,363.81	1,883.49	2,436.02
Thedford	72.00	68.00	39,915.08	74.6	626.48	1,808.24	1,886.45
Thorndale	65.00	65.00	20,151.96	38.8	325.84	1,006.77	936.08
Thorold	25.00	25.00	390,474.83	1,794.6	15,070.73	9,057.04	19,750.61
Tilbury	38.00	38.00	138,940.76	430.4	3,614.42	4,334.66	6,693.12
Tillsonburg	33.00	33.00	239,854.46	820.1	6,887.05	7,456.27	11,596.37
Toronto	26.10	26.10	62,265,661.85	254,386.2	2,136,289.92	1,086,797.72	3,066,902.45
Toronto twp.	32.00	32.00	435,727.83	1,656.8	13,913.51	12,359.48	21,481.96
Walkerville	28.00	28.00	1,991,001.92	7,388.3	62,045.63	40,986.16	97,140.42
Wallaceburg	36.00	37.00	544,170.69	1,706.4	14,330.04	15,093.35	26,197.64
Wardsville	62.00	62.00	14,856.55	31.0	260.33	710.95	705.27
Waterdown	32.00	32.00	58,467.77	210.7	1,769.42	1,472.71	2,827.06
Waterford	32.00	32.00	103,794.92	377.0	3,165.98	2,516.82	5,063.48
Waterloo	27.00	27.00	738,778.84	2,965.3	24,902.06	17,005.92	36,201.42
Watford	55.00	55.00	78,790.40	183.9	1,544.36	2,802.87	3,748.24
Welland	24.00	24.00	859,347.50	3,906.2	32,803.57	15,521.20	42,688.86
Wellesley	50.00	50.00	41,084.40	97.3	817.11	1,520.29	1,914.26
West Lorne	40.00	40.00	31,359.63	96.1	807.03	1,557.76	1,438.84
Weston	27.00	27.00	659,403.53	2,755.8	23,142.72	14,905.95	32,423.42

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it
reserve of the system and proportionately applied in reduction of such
Municipality; and the amount remaining to be credited or
supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
478.50	465.90	6,410.94	293.75	6,117.19	5,569.80	....	547.39
10,331.89	16,442.72	226,050.40	21,554.75	204,495.65	198,302.87	....	6,192.78
187.64	200.03	2,403.43	147.25	2,256.18	2,344.57	88.39	....
409.71	443.77	5,796.72	354.75	5,441.97	5,957.70	515.73	....
355.21	417.99	5,627.58	381.50	5,246.08	5,136.79	....	109.29
2,955.17	3,576.45	48,731.10	3,260.75	45,470.35	46,541.41	1,071.06	....
10,338.89	13,859.02	184,157.40	14,908.00	169,249.40	166,970.28	....	2,279.12
6,804.88	7,930.30	94,753.46	6,796.75	87,956.71	86,997.56	....	959.15
17,713.33	20,727.79	256,095.98	18,126.75	237,969.23	246,522.17	8,552.94	....
5,955.29	7,575.41	91,425.14	6,811.25	84,613.89	87,183.15	2,569.26	....
1,143.22	1,289.76	16,187.87	1,088.25	15,099.62	15,236.80	137.18	....
3,074.81	3,814.74	48,502.83	3,761.75	44,741.08	46,645.18	1,904.10	....
273.54	255.40	3,224.98	143.25	3,081.73	2,848.01	....	233.72
1,669.29	2,955.11	41,701.09	4,239.50	37,461.59	35,612.81	....	1,848.78
678.60	703.94	8,880.95	456.75	8,424.20	8,406.09	....	18.11
12,598.70	16,110.49	207,428.49	16,226.75	191,201.74	194,722.25	3,520.51	....
2,088.18	2,476.75	31,836.62	2,283.25	29,553.37	31,052.73	1,499.36	....
760.10	746.42	9,434.50	427.25	9,007.25	9,398.54	391.29	....
1,243.64	1,411.53	17,720.73	1,202.75	16,517.98	17,798.87	1,280.89	....
792.75	863.14	10,255.87	661.00	9,594.87	10,005.24	410.37	....
481.35	523.93	6,678.08	420.25	6,257.83	6,721.96	464.13	....
441.29	494.00	6,618.61	406.00	6,212.61	6,690.52	477.91	....
452.14	402.65	5,175.96	186.50	4,989.46	5,138.02	148.56	....
228.03	202.98	2,699.70	97.00	2,602.70	2,520.88	....	81.82
2,598.85	3,737.07	50,214.30	4,486.50	45,727.80	44,815.83	....	911.97
1,245.44	1,362.49	17,250.13	1,076.00	16,174.13	16,353.91	179.78	....
2,034.51	2,333.37	30,307.57	2,050.25	28,257.32	27,062.82	....	1,194.50
397,602.61	596,134.40	7,283,727.10	635,965.50	6,647,761.60	6,639,478.47	....	8,283.13
3,360.20	4,200.68	55,315.83	4,142.00	51,173.83	53,017.30	1,843.47	....
15,197.70	19,239.04	234,608.95	18,470.75	216,138.20	206,872.68	....	9,265.52
4,837.44	5,331.44	65,789.91	4,266.00	61,523.91	62,797.87	1,273.96	....
162.47	149.20	1,988.22	77.50	1,910.72	1,920.42	9.70	....
479.43	566.25	7,114.87	526.75	6,588.12	6,742.13	154.01	....
840.57	1,005.02	12,591.87	942.50	11,649.37	12,064.63	415.26	....
5,425.22	7,085.78	90,620.40	7,413.25	83,207.15	80,064.17	....	3,142.98
821.05	786.60	9,703.12	459.75	9,243.37	10,114.00	870.63	....
5,723.05	8,136.16	104,872.84	9,765.50	95,107.34	93,749.32	....	1,358.02
424.98	405.80	5,082.44	243.25	4,839.19	4,865.78	26.59	....
286.87	307.71	4,398.21	240.25	4,157.96	3,842.96	....	315.00
4,582.74	6,296.59	81,351.42	6,889.50	74,461.92	74,407.02	....	54.90

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Wheatley	50.00	53.00	55,699.53	118.4	994.30	1,815.02	2,650.16
Windsor	28.00	28.00	5,435,671.09	20,200.4	169,639.36	108,801.39	264,707.44
Woodbridge	35.00	35.00	87,790.52	296.3	2,488.27	2,503.53	4,245.35
Woodstock	27.00	28.00	1,188,583.85	4,721.1	39,646.96	27,784.37	58,320.45
Wyoming	56.00	54.00	27,081.05	60.8	510.59	1,033.68	1,283.16
York East twp.	32.00	32.00	1,264,772.47	5,142.5	43,185.80	49,481.37	62,853.48
York North twp.	32.00	32.00	743,389.81	2,703.9	22,706.87	22,131.51	36,736.70
Zurich	62.00	65.00	37,744.91	71.5	600.44	1,598.10	1,757.21
Toronto Transportation Comm.			89,830.35	335.8	2,819.99	2,486.11	3,658.77
Sandwich, Windsor and Amherstburg Railway Co.			702,595.31	2,550.7	21,420.32	13,780.62	34,377.11
Windsor, Essex and Lake Shore Railway Association			4,514.03	....	....	81.51	165.78
Totals—Municipalities			144,384,757.46	583,895.5	4,903,450.24	3,006,310.04	7,106,450.75
Rural Power Districts			$ c.		$ c.	$ c.	$ c.
Acton R.P.D.—Erin, Esquesing and Nassagaweya twps.			2,887.50	10.0	83.98	71.84	140.85
Ailsa Craig R.P.D.—Lobo, McGillivray and Williams E. twps.			2,164.07	5.6	47.03	73.02	103.63
Alvinston R.P.D.—Brooke twp.			2,664.54	3.3	27.71	97.56	124.74
Amherstburg R.P.D.—Anderdon, Colchester N., Colchester S. and Malden twps.			171,709.95	515.0	4,324.87	4,231.77	8,284.70
Aylmer R.P.D.—Bayham, Dereham, Dorchester N., Dorchester S., Malahide and Yarmouth twps.			83,435.46	269.6	2,264.06	2,056.43	4,037.23
Ayr R.P.D.—Blenheim, Dumfries N. and Dumfries S. twps.			11,620.61	42.5	356.90	396.05	568.85
Baden R.P.D.—Blandford, Blenheim, Easthope N., Easthope S., Waterloo, Wellesley, Wilmot and Zorra E. twps.			100,089.30	354.3	2,975.35	2,235.15	4,899.96
Beamsville R.P.D.—Caistor, Clinton, Gainsborough, Grimsby N., Grimsby S., Louth, Pelham and Wainfleet twps.			281,373.99	1,013.8	8,513.72	9,305.70	13,816.16
Belle River R.P.D.—Maidstone and Rochester twps.			62,602.56	195.3	1,640.09	1,618.26	3,009.23
Blenheim R.P.D.—Raleigh and Harwich twps.			35,681.11	111.0	932.16	913.71	1,719.37

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
600.48	558.78	6,618.74	296.00	6,322.74	6,215.76	....	106.98
41,432.97	52,517.95	637,099.11	50,501.00	586,598.11	565,610.45	....	20,987.66
744.86	853.93	10,835.94	740.75	10,095.19	10,370.74	275.55	....
8,833.17	11,412.36	145,997.31	11,802.75	134,194.56	131,356.45	....	2,838.11
286.93	270.93	3,385.29	152.00	3,233.29	3,307.81	74.52	....
8,128.48	12,114.79	175,763.92	12,856.25	162,907.67	164,560.49	1,652.82	....
5,494.91	7,194.42	94,264.41	6,759.75	87,504.66	86,525.56	....	979.10
426.67	378.59	4,761.01	178.75	4,582.26	4,608.57	26.31	....
707.11	867.47	10,539.45	839.50	9,699.95	10,671.40	971.45	....
5,475.34	6,802.37	81,855.76	6,376.75	75,479.01	75,479.01	....	....
73.02	51.24	371.55	....	371.55	371.55	....	....
1,001,225.72	1,383,875.90	17,401,312.65	1,459,738.75	15,941,573.90	15,818,467.05	74,895.33	198,002.18
$ c.	$ c.	$ c	$ c.	$ c	$ c.	$ c.	$ c.
24.33	28.07	349.07	25.00	324.07	324.07	see page	179
21.49	21.29	266.46	14.00	252.46	252.46	“	“
33.41	27.21	310.63	8.25	302.38	302.38	“	“
1,553.46	1,687.77	20,082.57	1,287.50	18,795.07	18,795.07	“	“
734.85	814.23	9,906.80	674.00	9,232.80	9,232.80	“	“
93.38	112.35	1,527.53	106.25	1,421.28	1,421.28	“	“
825.46	970.98	11,906.90	885.75	11,021.15	11,021.15	“	“
2,270.35	2,715.49	36,621.42	2,534.50	34,086.92	34,086.92	“	“
551.38	613.57	7,432.53	488.25	6,944.28	6,944.28	“	“
318.92	349.78	4,233.94	277.50	3,956.44	3,956.44	“	“

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each by the Commission; the amount appropriated from the contingency cost; the amount received by the Commission from each charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Bond Lake R.P.D.—King, Markham, Vaughan, Whitchurch and York N. twps.	277,686.12	871.4	7,317.86	8,709.54	13,519.82
Bothwell R.P.D.—Aldborough, Ekfrid, Mosa, Orford and Zone twps.	46,292.12	120.9	1,015.30	1,385.93	2,223.49
Brampton R.P.D.—Chinguacousy and Toronto twps.	31,813.43	122.4	1,027.89	1,398.03	1,562.85
Brant R.P.D.—Blenheim, Brantford, Burford, Dumfries S., Oakland and Onondaga twps.	114,496.84	449.5	3,774.82	3,817.15	5,637.98
Brigden R.P.D.—Moore and Sombra twps.	17,199.55	32.7	274.60	509.22	809.66
Burford R.P.D.—Brantford, Burford, Oakland, Townsend and Windham twps.	44,998.23	157.2	1,320.14	1,013.47	2,205.89
Caledonia R.P.D.—Ancaster, Barton, Binbrook, Caistor, Glanford, Grimsby S., Oneida, Onondaga and Seneca twps.	80,154.45	289.9	2,434.52	1,968.46	3,932.14
Chatham R.P.D.—Chatham, Dover, Harwich and Raleigh twps.	118,716.17	439.7	3,692.52	3,008.26	5,806.16
Chippawa R.P.D.—Bertie, Crowland and Willoughby twps.	21,085.73	98.3	825.50	519.33	1,033.24
Clinton R.P.D.—Goderich, Hay, Hullett, Stanley and Tuckersmith twps.	42,822.82	122.6	1,029.57	1,466.38	2,068.97
Delaware R.P.D. — Caradoc, Delaware, Ekfrid, Lobo, London, Southwold and Westminster twps.	75,738.55	273.5	2,296.81	2,025.62	3,678.37
Dorchester R.P.D.—Dorchester N., Dorchester S., London, Nissouri E., Nissouri W., Oxford N., Westminster and Yarmouth twps.	89,976.49	301.2	2,529.42	2,223.33	4,326.29
Dresden R.P.D.—Camden, Chatham and Dawn twps.	13,244.45	37.3	313.24	361.47	641.93
Drumbo R.P.D.—Blandford, Blenheim and Burford twps.	32,828.32	83.5	701.22	1,299.71	1,557.85
Dundas R.P.D.—Ancaster, Beverly, Flamboro E., Flamboro W., Glanford and Nelson twps.	140,063.17	566.6	4,758.19	2,747.81	6,907.95

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,328.22	2,720.07	34,595.51	2,178.50	32,417.01	32,417.01	see page	179
458.87	459.21	5,542.80	302.25	5,240.55	5,240.55	"	"
243.79	306.40	4,538.96	306.00	4,232.96	4,232.96	"	"
863.07	1,100.67	15,193.69	1,123.75	14,069.94	14,069.94	"	"
193.90	173.47	1,960.85	81.75	1,879.10	1,879.10	"	"
376.22	437.12	5,352.84	393.00	4,959.84	4,959.84	"	"
655.28	776.07	9,766.47	724.75	9,041.72	9,041.72	"	"
923.81	1,147.35	14,578.10	1,099.25	13,478.85	13,478.85	"	"
136.32	199.06	2,713.45	245.75	2,467.70	2,467.70	"	"
406.10	422.28	5,393.30	306.50	5,086.80	5,086.80	"	"
613.19	733.18	9,347.17	683.75	8,663.42	8,663.42	see page	181
772.84	875.89	10,727.77	753.00	9,974.77	9,974.77	"	"
125.99	130.75	1,573.38	93.25	1,480.13	1,480.13	"	"
332.55	325.31	4,216.64	208.75	4,007.89	4,007.89	"	"
1,043.19	1,343.39	16,800.53	1,416.50	15,384.03	15,384.03	"	"

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each by the Commission; the amount appropriated from the contingency cost; the amount received by the Commission from each charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Dunnville R.P.D.–Canborough, Dunn and Moulton twps.	11,147.72	40.0	335.91	390.01	549.38
Dutton R.P.D.—Aldborough and Dunwich twps.	39,095.36	122.7	1,030.41	1,545.51	1,904.80
Elmira R.P.D.—Peel, Pilkington and Woolwich twps.	22,705.78	73.7	618.92	632.64	1,110.94
Elora R.P.D.—Garafraxa W., Nichol, Peel and Pilkington twps.	31,619.26	97.2	816.27	929.69	1,525.45
Essex R.P.D.—Colchester N., Gosfield N., Gosfield S., Maidstone, Mersea, Rochester and Sandwich S. twps.	59,327.35	186.5	1,566.19	1,363.39	2,863.80
Exeter R.P.D.—Biddulph, Bosanquet, Hay, Hibbert, Stephen, Tuckersmith and Usborne twps.	104,222.72	274.9	2,308.56	3,138.49	4,972.33
Forest R.P.D.—Adelaide, Bosanquet, Plympton, Warwick and Williams W. twps.	13,641.87	32.5	272.93	443.95	652.11
Galt R.P.D.—Beverly, Dumfries N. Dumfries S. and Puslinch twps.	46,459.79	184.2	1,546.88	2,175.41	2,292.73
Georgetown R.P.D.—Chinguacousy, Erin and Esquesing tps.	38,236.59	120.7	1,013.62	912.23	1,856.72
Goderich R.P.D.—Ashfield, Colborne, Goderich and Wawanosh W. twps.	39,082.35	85.2	715.49	1,248.72	1,866.55
Grantham R.P.D.—Grantham and Niagara twps.	146,145.01	616.0	5,173.06	5,446.14	7,133.37
Guelph R.P.D.—Eramosa, Guelph, Nassagaweya and Puslinch twps.	113,691.94	411.6	3,456.54	2,571.00	5,601.23
Haldimand R.P.D.—Cayuga N., Oneida, Rainham, Seneca and Walpole twps.	62,827.20	164.5	1,381.44	1,648.50	3,030.15
Harriston R.P.D.—Howick and Minto twps.	7,006.88	17.6	147.80	190.30	336.72
Harrow R.P.D.–Colchester N., Colchester S., Gosfield S. and Malden twps.	120,715.51	350.6	2,944.27	3,072.27	5,850.13
Ingersoll R.P.D. — Dereham, Dorchester N., Nissouri E., Oxford N., Oxford W., Zorra E. and Zorra W. twps.	107,646.66	349.8	2,937.56	2,958.20	5,233.52

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
93.61	108.03	1,476.94	100.00	1,376.94	1,376.94	see page	181
352.09	382.96	5,215.77	306.75	4,909.02	4,909.02	"	"
200.01	221.85	2,784.36	184.25	2,600.11	2,600.11	"	"
289.35	310.00	3,870.76	243.00	3,627.76	3,627.76	"	"
519.73	581.16	6,894.27	466.25	6,428.02	6,428.02	"	"
1,026.80	1,025.02	12,471.20	687.25	11,783.95	11,783.95	"	"
140.82	136.01	1,645.82	81.25	1,564.57	1,564.57	"	"
346.40	446.18	6,807.60	460.50	6,347.10	6,347.10	"	"
344.47	374.44	4,501.48	301.75	4,199.73	4,199.73	"	"
422.11	391.63	4,644.50	213.00	4,431.50	4,431.50	"	"
1,021.68	1,370.96	20,145.21	1,540.00	18,605.21	18,605.21	"	"
924.10	1,101.01	13,653.88	1,029.00	12,624.88	12,624.88	"	"
632.08	622.97	7,315.14	411.25	6,903.89	6,903.89	"	"
71.18	69.66	815.66	44.00	771.66	771.66	"	"
1,114.88	1,189.21	14,170.76	876.50	13,294.26	13,294.26	see page	183
946.58	1,050.82	13,126.68	874.50	12,252.18	12,252.18	"	"

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Jordan R.P.D.—Grantham, Louth, Pelham and Thorold twps.	67,464.80	282.0	2,368.19	1,594.69	3,208.77
Keswick R.P.D.—Georgina, Gwillimbury E. and Gwillimbury N. twps.	156,884.49	421.1	3,536.32	5,450.28	7,575.34
Kingsville R.P.D.—Gosfield N., Gosfield S., Mersea and Romney twps.	194,399.37	572.5	4,807.75	4,571.29	9,344.48
Listowel R.P.D.—Elma, Grey, Maryborough, Mornington, Peel, Wallace and Wellesley twps.	41,887.92	136.6	1,147.14	1,142.83	2,041.36
London R.P.D.—Delaware, Lobo, London, Nissouri W. and Westminster twps.	410,325.75	1,485.0	12,470.77	10,466.84	20,043.13
Lucan R.P.D.—Biddulph, London, McGillivray and Stephen twps.	17,042.77	57.2	480.35	587.94	816.72
Lynden R.P.D.—Ancaster, Beverly, Brantford and Dumfries S. twps.	47,538.30	156.8	1,316.78	1,408.63	2,298.44
Markham R.P.D.—Markham, Pickering, Scarboro, Uxbridge and Whitchurch twps.	118,479.07	375.2	3,150.87	3,578.80	5,739.23
Merlin R.P.D.—Raleigh, Romney and Tilbury E. twps.	64,640.20	165.7	1,391.52	1,805.40	3,112.93
Milton R.P.D.—Esquesing, Nassagaweya, Nelson and Trafalgar twps.	47,497.87	153.2	1,286.55	1,717.81	2,269.72
Milverton R.P.D.—Ellice, Elma, Mornington and Wellesley twps.	22,505.29	71.9	603.80	566.02	1,095.65
Mitchell R.P.D.—Downie, Ellice, Elma, Fullarton, Hibbert, Logan and McKillop twps.	55,308.74	179.1	1,504.05	1,423.46	2,688.79
Newmarket R.P.D.—Georgina, Gwillimbury E., King, Scott, Uxbridge and Whitchurch twps.	69,756.20	222.1	1,865.16	2,061.82	3,386.61
Niagara R.P.D.—Niagara and Stamford twps.	75,898.15	359.2	3,016.50	1,911.80	3,750.10
Norwich R.P.D.—Burford, Dereham, Middleton, Norwich N., Norwich S., Oxford E. and Windham twps.	75,056.26	247.2	2,075.94	2,169.96	3,607.50

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
444.53	612.61	8,228.79	705.00	7,523.79	7,523.79	see page	183
1,465.58	1,553.38	19,580.90	1,052.75	18,528.15	18,528.15	"	"
1,779.45	1,913.09	22,416.06	1,431.25	20,984.81	20,984.81	"	"
365.06	409.17	5,105.56	341.50	4,764.06	4,764.06	"	"
3,300.20	3,960.38	50,241.32	3,712.50	46,528.82	46,528.82	"	"
144.19	164.55	2,193.75	143.00	2,050.75	2,050.75	"	"
417.23	463.82	5,904.90	392.00	5,512.90	5,512.90	"	"
980.79	1,155.96	14,605.65	938.00	13,667.65	13,667.65	"	"
646.78	641.94	7,598.57	414.25	7,184.32	7,184.32	"	"
406.08	454.33	6,134.49	383.00	5,751.49	5,751.49	"	"
199.01	220.19	2,684.67	179.75	2,504.92	2,504.92	"	"
484.48	540.56	6,641.34	447.75	6,193.59	6,193.59	"	"
578.10	682.54	8,574.23	555.25	8,018.98	8,018.98	"	"
482.26	716.22	9,876.88	898.00	8,978.88	8,978.88	"	"
654.62	732.36	9,240.38	618.00	8,622.38	8,622.38	"	"

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each by the Commission; the amount appropriated from the contingency cost; the amount received by the Commission from each charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Oil Springs R.P.D.—Brooke, Dawn, Enniskillen and Euphemia twps	15,419.73	41.7	350.19	504.47	738.17
Palmerston R.P.D.—Arthur, Maryborough, Minto, Peel, and Wallace twps	15,466.74	47.7	400.58	421.62	752.93
Petrolia R.P.D.—Enniskillen, Moore, Plympton and Sarnia twps	8,422.82	25.3	212.47	227.58	406.07
Preston R.P.D.—Dumfries N., Guelph, Puslinch, Waterloo and Woolwich twps	234,954.41	872.8	7,329.62	5,293.45	11,518.12
Ridgetown R.P.D.—Aldborough, Harwich, Howard, and Orford twps. and Rondeau Park	95,729.88	255.5	2,145.65	3,211.48	4,573.58
St. Jacobs R.P.D.—Peel, Waterloo, Wellesley and Woolwich twps	70,587.91	246.5	2,070.06	1,807.99	3,440.06
St. Marys R.P.D.—Blanshard, Downie, Fullarton, Nissouri E., Nissouri W. and Usborne twps	67,794.60	203.6	1,709.80	2,064.45	3,281.16
St. Thomas R.P.D.—Dunwich, Southwold, Westminster and Yarmouth twps	160,787.69	614.8	5,162.98	4,384.22	7,897.94
Saltfleet R.P.D.—Barton, Binbrook, Grimsby N., and Saltfleet twps	252,436.12	885.5	7,436.26	6,991.11	12,356.90
Sandwich R.P.D.—Anderdon, Colchester N., Maidstone, Sandwich E., Sandwich S. and Sandwich W. twps	255,023.01	874.4	7,343.06	5,614.13	12,366.25
Sarnia R.P.D.—Moore, Plympton and Sarnia twps	166,373.62	510.4	4,286.24	4,528.04	8,050.63
Scarboro R.P.D.—Pickering, Scarboro and York N. twps	105,031.85	334.2	2,806.55	2,141.11	5,120.87
Seaforth R.P.D.—Hibbert, Hullett, McKillop and Tuckersmith twps	16,489.87	52.3	439.21	444.15	802.29
Simcoe R.P.D.—Charlotteville, Townsend, Walpole, Windham and Woodhouse twps	55,537.68	204.7	1,719.03	1,870.69	2,726.05
Stamford R.P.D.—Stamford and Thorold twps	38,228.70	170.8	1,434.35	705.22	1,899.54

SYSTEM *N.—COST OF POWER*

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
149.54	152.60	1,894.97	104.25	1,790.72	1,790.72	see page	183
140.08	151.73	1,866.94	119.25	1,747.69	1,747.69	“	“
76.71	82.77	1,005.60	63.25	942.35	942.35	see page	185
1,862.40	2,270.04	28,273.63	2,182.00	26,091.63	26,091.63	“	“
938.16	948.34	11,817.21	638.75	11,178.46	11,178.46	“	“
588.19	685.31	8,591.61	616.25	7,975.36	7,975.36	“	“
615.37	666.26	8,337.04	509.00	7,828.04	7,828.04	“	“
1,237.34	1,549.12	20.231.60	1,537.00	18,694.60	18,694.60	“	“
2,033.88	2,438.90	31,257.05	2,213.75	29,043.30	29,043.30	“	“
2,089.58	2.481.08	29,894.10	2,186.00	27,708.10	27,708.10	“	“
1,493.88	1,632.40	19,991.19	1,276.00	18,715.19	18,715.19	“	“
870.95	1,027.79	11,967.27	835.50	11,131.77	11,131.77	“	“
146.57	161.43	1,993.65	130.75	1,862.90	1,862.90	“	“
444.10	537.07	7,296.94	511.75	6,785.19	6,785.19	“	“
257.14	362.55	4,658.80	427.00	4,231.80	4,231.80	“	“

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Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Stratford R.P.D.—Downie, Easthope N., Easthope S. and Ellice twps.	38,858.32	149.7	1,257.15	973.57	1,891.58
Strathroy R.P.D.—Adelaide, Caradoc, Ekfrid, Lobo, Metcalfe and Williams E. twps.	31,957.13	97 2	816.27	1,115.21	1,547.16
Streetsville R.P.D.—Chinguacousy, Esquesing, Toronto and Trafalgar twps.	89,829.50	280.7	2,357.27	2,820.42	4,347.50
Tavistock R.P.D.—Easthope N., Easthope S., Ellice and Zorra E. twps.	46,207.46	153.7	1,290.75	1,174.28	2,243.01
Thamesville R.P.D.—Camden, Chatham, Euphemia, Harwich, Howard, Orford and Zone twps.	29,893.46	96.1	807.03	827.94	1,450.98
Tilbury R. P. D. — Dover, Mersea, Rochester, Romney, Tilbury E., Tilbury N. and Tilbury W. twps.	45,031.23	138.7	1,164.78	1,232.50	2,186.03
Tillsonburg R.P.D.—Bayham, Dereham, Dorchester S., Houghton, Malahide, Middleton, Norwich N., Norwich S. and Walsingham N. twps.	95,192.56	303.5	2,548.74	2,830.01	4,574.40
Wallaceburg R.P.D.—Chatham, Dover and Sombra twps.	56,757.99	173.5	1,457.03	1,707.40	2,719.15
Walsingham R.P.D.—Charlotteville, Houghton, Middleton, Walsingham N., Walsingham S. and Windham twps.	71,104.95	169.9	1,426.79	1,806.49	3,417.75
Walton R.P.D.—Grey, Hullett, McKillop, Morris, Wawanosh E. and Wawanosh W. twps.	34,403.32	83.1	697.86	1,116.50	1,645.23
Waterdown R.P.D.—Flamboro E., Flamboro W. and Nelson twps.	220,105.29	763.6	6,412.57	5,691.34	10,849.46
Waterford R.P.D. Townsend and Windham twps.	51,980.08	188.8	1,585.51	1,241.72	2,553.92
Watford R.P.D.—Adelaide, Metcalfe and Warwick twps.	7,841.42	19.3	162.08	244.84	376.55

SYSTEM

N.—COST OF POWER

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
294.33	374.20	4,790.83	374.25	4,416.58	4,416.58	see page	185
292.55	312.95	4,084.14	243.00	3,841.14	3,841.14	"	"
812.23	880.32	11,217.74	701.75	10,515.99	10,515.99	"	"
396.88	450.65	5,555.57	384.25	5,171.32	5,171.32	"	"
261.14	292.32	3,639.41	240.25	3,399.16	3,399.16	"	"
405.21	441.78	5,430.30	346.75	5,083.55	5,083.55	"	"
849.36	931.21	11,733.72	758.75	10,974.97	10,974.97	see page	187
513.29	557.12	6,953.99	433.75	6,520.24	6,520.24	"	"
744.20	709.33	8,104.56	424.75	7,679.81	7,679.81	"	"
355.95	342.85	4,158.39	207.75	3,950.64	3,950.64	"	"
1,825.32	2,132.70	26,911.39	1,909.00	25,002.39	25,002.39	"	"
420.96	503.33	6,305.44	472.00	5,833.44	5,833.44	"	"
79.92	78.02	941.41	48.25	893.16	893.16	"	"

NIAGARA

Statement showing the amount chargeable (upon annual adjustment) to each
by the Commission; the amount appropriated from the contingency
cost; the amount received by the Commission from each
charged to each Municipality in respect of power

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Welland R.P.D.—Bertie, Crowland, Humberstone, Moulton, Pelham, Thorold, Wainfleet and Willoughby twps.	253,948.81	1,047.3	8,795.04	7,384.96	12,446.80
Woodbridge R.P.D.—Albion, Chinguacousy, Etobicoke, King, Toronto, Toronto Gore, Vaughan and York N. twps.	163,815.95	544.0	4,568.42	4,787.06	7,901.91
Woodstock R.P.D.—Blandford, Blenheim, Burford, Oxford E., Oxford N., Oxford W., Zorra E. and Zorra W. twps.	139,274.20	508.1	4,266.93	3,785.87	6,789.63
Totals—Municipalities	144,384,757.46	583,895.5	4,903,450.24	3,006,310.04	7,106,450.75
Totals—Rural power districts	7,264,089.00	24,557.0	206,225.28	201,527.04	353,247.63
Totals—Companies	45,384,574.78	205,259.4	1,723,731.83	985,224.22	2,303,263.47
Totals—Local distribution systems	1,466,889.92	4,690.0	39,385.79	99,252.62	73,286.39
Non-operating capital	95,845.36	.....	.....	.....	.....
Grand totals	198,596,156.52	818,401.9	6,872,793.14	4,292,313.92	9,836,248.24

SYSTEM

N.—COST OF POWER

Municipality as the Cost—under Power Commission Act—of Power supplied to it reserve of the system and proportionately applied in reduction of such Municipality; and the amount remaining to be credited or supplied to it in the year ending October 31, 1934

costs and fixed charges		Total cost of power for year	Amount appropriated from contingency reserve and proportionately applied in reduction of such cost	Amounts charged to each municipality in respect of power supplied to it in the year	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality	
Renewals	Sinking fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,879.46	2,428.98	32,935.24	2,618.25	30,316.99	30,316.99	see page	187
1,399.75	1,590.38	20,247.52	1,360.00	18,887.52	18,887.52	"	"
1,121.04	1,347.80	17,311.27	1,270.25	16,041.02	16,041.02	"	"
1,001,225.72	1,383,875.90	17,401,312.65	1,459,738.75	15,941,573.90	15,818,467.05	74,895.33	198,002.18
61,290.10	70,615.30	892,905.35	61,392.50	831,512.85	831,512.85	....	....
290,079.03	453,846.28	5,756,144.83	....	5,756,144.83	4,419,025.94	....	*1,337,118.89
15,541.73	10,013.80	237,480.33	....	237,480.33	225,902.11	....	*11,578.22
....	....	....	....	....	....	....	....
1,368,136.58	1,918,351.28	24,287,843.16	1,521,131.25	22,766,711.91	21,294,907.95	74,895.33	1,546,699.29

*Written off to contingencies reserve.

NIAGARA SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Acton R.P.D.—Erin, Esquesing and Nassagaweya twps.	15,011.89	7,505.94	7,505.95	324.07
Ailsa Craig R.P.D.—Lobo, McGillivray and Williams E. twps.	9,448.36	4,724.18	4,724.18	252.46
Alvinston R.P.D.—Brooke twp.	5,607.16	2,803.58	2,803.58	302.38
Amherstburg R.P.D.—Anderdon, Colchester N., Colchester S. and Malden twps.	144,443.93	72,136.46	72,307.47	18,795.07
Aylmer R.P.D.—Bayham, Dereham, Dorchester N., Dorchester S., Malahide and Yarmouth twps.	*195,742.30	95,823.25	99,919.05	9,232.80
Ayr R.P.D.—Blenheim, Dumfries N. and Dumfries S. twps.	*42,220.32	21,074.67	21,145.65	1,421.28
Baden R.P.D.—Blandford, Blenheim, Easthope N., Easthope S., Waterloo, Wellesley, Wilmot and Zorra E. twps.	*174,106.27	86,685.83	87,420.44	11,021.15
Beamsville R.P.D.—Caistor, Clinton, Gainsborough, Grimsby N., Grimsby S., Louth, Pelham and Wainfleet twps.	363,819.49	175,957.19	187,862.30	34,086.92
Belle River R.P.D.—Maidstone and Rochester twps.	88,114.06	43,980.87	44,133.19	6,944.28
Blenheim R.P.D.—Raleigh and Harwich twps.	*110,058.00	54,039.66	56,018.34	3,956.44
Bond Lake R.P.D.—King, Markham, Vaughan, Whitchurch and York N. twps.	347,634.73	173,817.36	173,817.37	32,417.01
Bothwell R.P.D.—Aldborough, Ekfrid, Mosa, Orford and Zone twps.	*60,517.82	29,816.21	30,701.61	5,240.55
Brampton R.P.D.—Chinguacousy and Toronto twps.	80,911.92	40,455.96	40,455.96	4,232.96
Brant R.P.D.—Blenheim, Brantford, Burford, Dumfries S., Oakland and Onondaga twps.	*234,105.21	115,915.46	118,189.75	14,069.94
Brigden R.P.D.—Moore and Sombra twps.	54,837.33	27,418.66	27,418.67	1,879.10
Burford R.P.D.—Brantford, Burford, Oakland, Townsend and Windham twps.	95,455.55	47,727.77	47,727.78	4,959.84
Caledonia R.P.D.—Ancaster, Barton, Binbrook, Caistor, Glanford, Grimsby S., Oneida, Onondaga and Seneca, twps.	204,779.34	102,143.74	102,635.60	9,041.72
Chatham R.P.D.—Chatham Dover, Harwich and Raleigh twps.	256,523.39	127,960.52	128,562.87	13,478.85
Chippawa R.P.D.—Bertie, Crowland and Willoughby twps.	59,842.87	29,918.56	29,924.31	2,467.70
Clinton R.P.D.—Goderich, Hay, Hullett, Stanley and Tuckersmith twps.	127,506.42	62,742.35	64,764.07	5,086.80

Note—Items marked * include portions of transmission lines aggregating $41,747.77

RURAL POWER DISTRICTS *N.—RURAL OPERAT ING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
418.93	344.31	298.43	149.22	78.56	1,613.52	1,399.91		213.61
171.63	249.07	215.88	107.94	56.83	1,053.81	893.88		159.93
118.45	127.85	110.81	55.41	29.17	744.07	484.29		259.78
5,367.61	3,308.15	2,863.92	1,431.96	754.83	32,521.54	33,555.28	1,033.74	
8,050.09	4,549.12	3,861.04	1,930.52	1,037.98	28,661.55	30,080.13	1,418.58	
1,416.40	965.60	835.51	417.76	220.32	5,276.87	4,458.04		818.83
4,913.20	3,958.28	3,416.60	1,708.30	903.17	25,920.70	23,416.06		2,504.64
16,870.30	8,529.89	7,155.20	3,577.60	1,946.29	72,166.20	73,445.40	1,279.20	
4,277.13	2,029.55	1,756.07	878.03	463.08	16,348.14	17,299.52	951.38	
4,095.28	2,549.64	2,170.33	1,085.16	581.75	14,438.60	16,955.26	2,516.66	
14,408.69	7,744.15	6,712.24	3,356.12	1,767.00	66,405.21	68,051.67	1,646.46	
2,773.96	1,336.90	1,141.04	570.53	305.04	11,368.02	11,751.73	383.71	
2,869.61	1,840.84	1,595.55	797.78	420.03	11,756.77	10,031.62		1,725.15
7,856.53	5,357.21	4,597.88	2,298.93	1,222.37	35,402.86	32,174.61		3,228.25
1,207.54	1,262.64	1,094.39	547.20	288.10	6,278.97	5,576.36		702.61
3,071.86	2,170.01	1,880.86	940.43	495.13	13,518.13	13,611.58	93.45	
6,047.06	4,703.56	4,066.97	2,033.49	1,073.22	26,966.02	25,971.98		994.04
11,229.34	5,847.59	5,063.38	2,531.69	1,334.25	39,485.10	39,956.30	471.20	
2,705.75	1,350.32	1,170.28	585.14	308.10	8,587.29	8,261.70		325.59
4,586.34	2,963.78	2,530.58	1,265.30	676.25	17,109.05	15,457.66		1,651.39

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used for purposes of rural power districts.

NIAGARA SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Delaware R.P.D.—Caradoc, Delaware Ekfrid, Lobo, London, Southwold and Westminster twps.	*230,002.13	114,074.14	115,927.99	8,663.42
Dorchester R.P.D.—Dorchester N., Dorchester S., London, Nissouri E., Nissouri W., Oxford N., Westminster and Yarmouth twps.	*205,917.07	101,957.90	103,959.17	9,974.77
Dresden R.P.D.—Camden, Chatham and Dawn twps.	36,332.81	18,166.40	18,166.41	1,480.13
Drumbo R.P.D.—Blandford, Blenheim and Burford twps.	*104,363.86	51,921.01	52,442.85	4,007.89
Dundas R.P.D.—Ancaster, Beverly, Flamboro E., Flamboro W., Glanford and Nelson twps.	250,833.33	121,956.37	128,876.96	15,384.03
Dunnville R.P.D.—Canborough, Dunn, and Moulton twps.	44,926.04	22,463.02	22,463.02	1,376.94
Dutton R.P.D.—Aldborough and Dunwich twps.	74,789.84	37,394.92	37,394.92	4,909.02
Elmira R.P.D.—Peel, Pilkington and Woolwich twps.	34,882.99	17,441.49	17,441.50	2,600.11
Elora R.P.D.—Garafraxa W., Nichol, Peel, and Pilkington twps.	85,705.98	42,634.08	43,071.90	3,627.76
Essex R.P.D.—Colchester N., Gosfield N., Gosfield S., Maidstone, Mersea, Rochester and Sandwich S. twps.	*140,534.63	69,333.34	71,201.29	6,428.02
Exeter R.P.D.—Biddulph, Bosanquet, Hay, Hibbert, Stephen, Tuckersmith and Usborne twps.	*150,370.44	74,453.55	75,916.89	11,783.95
Forest R.P.D.—Adelaide, Bosanquet, Plympton, Warwick and Williams W. twps.	*60,544.09	29,919.36	30,624.73	1,564.57
Galt R.P.D.—Beverly, Dumfries N., Dumfries S., and Puslinch twps.	81,736.56	40,868.28	40,868.28	6,347.10
Georgetown R.P.D.—Chinguacousy, Erin and Esquesing twps.	105,683.41	52,841.71	52,841.70	4,199.73
Goderich R.P.D. — Ashfield, Colborne, Goderich and Wawanosh W. twps.	73,413.46	36,441.02	36,972.44	4,431.50
Grantham R.P.D.—Grantham and Niagara twps.	148,979.19	70,409.59	78,569.60	18,605.21
Guelph R.P.D.—Eramosa, Guelph, Nassagaweya and Puslinch twps.	186,153.77	93,050.44	93,103.33	12,624.88
Haldimand R.P.D.—Cayuga N., Oneida, Rainham, Seneca and Walpole twps.	*110,221.99	53,479.52	56,742.47	6,903.89
Harriston R.P.D.—Howick and Minto twps.	*32,795.60	16,117.64	16,677.96	771.66

Note—Items marked * include portions of transmission lines aggregating $41,747.77

RURAL POWER DISTRICTS *N.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8,248.62	5,312.17	4,567.24	2,283.62	1,212.09	30,287.16	30,988.71	701.55	....
8,123.99	4,774.52	4,098.29	2,049.15	1,089.41	30,110.13	30,334.87	224.74	....
1,405.41	838.37	726.66	363.33	191.29	5,005.19	4,288.88	....	716.31
3,958.21	2,391.91	2,062.76	1,031.38	545.76	13,997.91	12,112.01	....	1,885.90
10,782.29	5,865.57	4,945.56	2,472.78	1,338.35	40,788.58	42,169.14	1,380.56	....
1,516.23	993.22	860.87	430.44	226.63	5,404.33	3,407.99	....	1,996.34
3,487.92	1,706.29	1,478.93	739.47	389.33	12,710.96	10,462.28	....	2,248.68
1,782.66	804.64	697.42	348.71	183.60	6,417.14	5,426.95	....	990.19
3,972.08	1,938.68	1,671.59	835.79	442.35	12,488.25	10,398.96	....	2,089.29
4,856.73	3,273.76	2,800.18	1,400.09	746.98	19,505.76	21,419.70	1,913.94	....
7,331.50	3,360.39	2,883.35	1,441.68	766.75	27,567.62	27,699.33	131.71	....
1,322.66	1,397.71	1,197.38	598.68	318.92	6,399.92	6,825.29	425.37	....
2,531.06	1,858.56	1,610.91	805.45	424.07	13,577.15	13,135.08	....	442.07
3,483.34	2,422.61	2,099.80	1,049.90	552.77	13,808.15	12,300.13	....	1,508.02
2,144.99	1,694.10	1,457.74	728.86	386.54	10,843.73	8,845.21	....	1,998.52
9,746.72	3,599.32	2,956.51	1,478.25	821.26	37,207.27	34,556.03	....	2,651.24
6,379.32	4,206.69	3,645.09	1,822.54	959.85	29,638.37	27,102.31	....	2,536.06
5,234.47	2,442.11	2,051.47	1,025.73	557.22	18,214.89	15,174.84	....	3,040.05
1,382.02	768.62	654.99	327.50	175.38	4,080.17	3,005.32	....	1,074.85

used for purposes of rural power districts.

NIAGARA SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Harrow R.P.D.—Colchester N., Colchester S., Gosfield S. and Malden twps.	139,675.58	69,837.79	69,837.79	13,294.26
Ingersoll R.P.D.—Dereham, Dorchester N., Nissouri E., Oxford N., Oxford W., Zorra E. and Zorra W. twps.	294,170.59	147,085.29	147,085.30	12,252.18
Jordan R.P.D.—Grantham, Louth, Pelham and Thorold twps.	102,579.57	51,086.36	51,493.21	7,523.79
Keswick R.P.D.—Georgina, Gwillimbury E. and Gwillimbury N. twps.	170,038.05	82,441.58	87,596.47	18,528.15
Kingsville R.P.D.—Gosfield N., Gosfield S., Mersea and Romney twps.	*295,171.65	145,342.58	149,829.07	20,984.81
Listowel R.P.D.—Elma, Grey, Maryborough, Mornington, Peel, Wallace, and Wellesley twps.	120,209.62	60,104.81	60,104.81	4,764.06
London R.P.D.—Delaware, Lobo, London, Nissouri W. and Westminster twps.	*467,757.63	233,356.94	234,400.69	46,528.82
Lucan R.P.D.—Biddulph, London, McGillivray and Stephen twps.	*58,270.70	28,978.95	29,291.75	2,050.75
Lynden R.P.D.—Ancaster, Beverly, Brantford and Dumfries S. twps.	99,269.63	49,192.36	50,077.27	5,512.90
Markham R.P.D.—Markham, Pickering, Scarboro, Uxbridge and Whitchurch twps.	*242,237.55	121,055.45	121,182.10	13,667.65
Merlin R.P.D.—Raleigh, Romney and Tilbury E. twps.	143,625.53	71,812.77	71,812.76	7,184.32
Milton R.P.D.—Esquesing, Nassagaweya, Nelson and Trafalgar twps.	115,990.97	57,995.48	57,995.49	5,751.49
Milverton R.P.D.—Ellice, Elma, Mornington and Wellesley twps.	67,061.54	33,530.77	33,530.77	2,504.92
Mitchell R.P.D.—Downie, Ellice, Elma, Fullarton, Hibbert, Logan and McKillop twps.	111,726.80	55,863.40	55,863.40	6,193.59
Newmarket R.P.D.—Georgina, Gwillimbury E., King, Scott, Uxbridge and Whitchurch twps.	125,538.92	62,769.46	62,769.46	8,018.98
Niagara R.P.D.—Niagara and Stamford twps.	*128,513.65	63,778.10	64,735.55	8,978.88
Norwich R.P.D.—Burford, Dereham, Middleton, Norwich N., Norwich S., Oxford E. and Windham twps.	*187,116.40	91,473.14	95,643.26	8,622.38
Oil Springs R.P.D.—Brooke, Dawn, Enniskillen and Euphemia twps.	29,722.94	14,861.47	14,861.47	1,790.72
Palmerston R.P.D.—Arthur, Maryborough, Minto, Peel and Wallace twps.	*60,766.01	30,102.86	30,663.15	1,747.69

Note—Items marked * include portions of transmission lines aggregating $41,747.77

RURAL POWER DISTRICTS *N.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
5,560.55	3,110.08	2,695.66	1,347.83	709.63	26,718.01	29,849.15	3,131.14	......
8,978.93	6,728.93	5,832.30	2,916.15	1,535.35	38,243.84	34,106.07	......	4,137.77
6,150.23	2,349.21	2,028.04	1,014.02	536.02	19,601.31	17,366.17	......	2,235.14
7,819.77	3,914.87	3,290.11	1,645.06	893.26	36,091.22	32,012.68	......	4,078.54
13,666.73	6,831.42	5,831.39	2,915.70	1,558.74	51,788.79	53,088.10	1,299.31	......
5,793.49	2,738.31	2,373.43	1,186.71	624.80	17,480.80	15,329.95	......	2,150.85
22,336.24	10,590.31	9,158.28	4,579.14	2,416.41	95,609.20	94,787.04	......	822.16
1,162.48	1,345.13	1,159.64	579.82	306.92	6,604.74	6,568.72	......	36.02
3,744.74	2,280.24	1,958.70	979.35	520.28	14,996.21	13,211.12	......	1,785.09
6,928.42	5,422.46	4,690.39	2,345.19	1,237.26	34,291.37	39,494.38	5,203.01	......
4,030.73	3,301.89	2,861.91	1,430.95	753.40	19,563.20	18,001.69	......	1,561.51
4,104.75	2,610.85	2,262.95	1,131.47	595.72	16,457.23	15,348.13	......	1,109.10
3,344.83	1,529.49	1,325.69	662.84	348.99	9,716.76	7,857.18	......	1,859.58
4,322.35	2,551.19	2,211.24	1,105.62	582.11	16,966.10	17,047.87	81.77	......
4,922.97	2,834.52	2,456.82	1,228.41	646.75	20,108.45	19,948.70	......	159.75
5,636.78	2,938.95	2,528.18	1,264.09	670.58	22,017.46	23,484.36	1,466.90	......
7,207.63	4,317.62	3,658.88	1,829.44	985.16	26,621.11	25,524.06	......	1,097.05
1,465.87	682.46	591.52	295.76	155.72	4,982.05	5,285.58	303.53	......
2,102.01	1,405.30	1,206.83	603.41	320.65	7,385.89	5,144.96	......	2,240.93

used for purposes of rural power districts.

NIAGARA SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Petrolia R.P.D.—Enniskillen, Moore, Plympton and Sarnia twps.	*26,401.41	12,647.33	13,754.08	942.35
Preston R.P.D.—Dumfries N., Guelph, Puslinch, Waterloo and Woolwich twps.	*334,446.56	166,296.53	168,150.03	26,091.63
Ridgetown R.P.D.—Aldborough, Harwich, Howard, Orford twps. and Rondeau Park	203,958.15	101,979.07	101,979.08	11,178.46
St. Jacobs R.P.D.—Peel, Waterloo, Wellesley and Woolwich twps.	109,398.27	54,413.41	54,984.86	7,975.36
St. Marys R.P.D.—Blanshard, Downie, Fullarton, Nissouri E., Nissouri W. and Usborne twps.	197,928.35	98,964.18	98,964.17	7,828.04
St. Thomas R.P.D.—Dunwich, Southwold, Westminster and Yarmouth twps.	313,890.97	156,251.74	157,639.23	18,694.60
Saltfleet R.P.D.—Barton, Binbrook, Grimsby N. and Saltfleet twps.	301,581.29	147,951.15	153,630.14	29,043.30
Sandwich R.P.D.—Anderdon, Colchester N., Maidstone, Sandwich E., Sandwich S. and Sandwich W. twps.	343,062.05	171,531.02	171,531.03	27,708.10
Sarnia R.P.D.—Moore, Plympton and Sarnia twps.	*218,050.07	106,815.83	111,234.24	18,715.19
Scarboro R.P.D.—Pickering, Scarboro and York N. twps.	209,266.83	104,633.41	104,633.42	11,131.77
Seaforth R.P.D.—Hibbert, Hullett, McKillop and Tuckersmith twps.	29,638.93	14,201.52	15,437.41	1,862.90
Simcoe R.P.D.—Charlotteville, Townsend, Walpole, Windham and Woodhouse twps.	136,303.27	67,981.35	68,321.92	6,785.19
Stamford R.P.D.—Stamford and Thorold twps.	41,163.48	20,581.74	20,581.74	4,231.80
Stratford R.P.D.—Downie, Easthope N., Easthope S. and Ellice twps.	67,426.12	33,452.21	33,973.91	4,416.58
Strathroy R.P.D.—Adelaide, Caradoc, Ekfrid, Lobo, Metcalfe and Williams E. twps.	102,422.32	51,034.39	51,387.93	3,841.14
Streetsville R.P.D.—Chinguacousy, Esquesing, Toronto and Trafalgar twps.	191,487.67	95,743.84	95,743.83	10,515.99
Tavistock R.P.D.—Easthope N., Easthope S., Ellice and Zorra E. twps.	123,407.91	61,703.96	61,703.95	5,171.32
Thamesville R.P.D.—Camden, Chatham, Euphemia, Harwich, Howard, Orford and Zone twps.	107,673.21	53,585.12	54,088.09	3,399.16
Tilbury R.P.D.—Dover, Mersea, Rochester, Romney, Tilbury E., Tilbury N. and Tilbury W. twps.	*111,273.18	54,918.62	56,354.56	5,083.55

Note—Items marked * include portions of transmission lines aggregating $41,747.77

RURAL POWER DISTRICTS *N.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,157.51	627.19	521.48	260.74	143.10	3,652.37	3,560.08		92.29
11,047.68	7,581.23	6,538.02	3,269.01	1,729.83	56,257.40	54,265.86		1,991.54
7,488.47	4,662.15	4,040.92	2,020.46	1,063.77	30,454.23	29,422.92		1,031.31
5,486.67	2,510.18	2,164.27	1,082.14	572.76	19,791.38	17,515.13		2,276.25
4,788.46	4,474.01	3,877.85	1,938.92	1,020.84	23,928.12	21,157.77		2,770.35
12,402.80	7,140.64	6,161.40	3,080.69	1,629.29	49,109.42	47,945.39		1,164.03
15,850.12	6,852.67	5,825.97	2,912.99	1,563.60	62,048.65	67,306.56	5,257.91	
22,348.90	7,821.72	6,779.47	3,389.73	1,784.70	69,832.62	69,516.51		316.11
12,993.23	5,040.53	4,280.52	2,140.26	1,150.11	44,319.84	46,827.57	2,507.73	
5,281.69	4,550.19	3,943.87	1,971.93	1,038.23	27,917.68	35,354.55	7,436.87	
1,659.86	707.51	588.51	294.26	161.43	5,274.47	4,867.54		406.93
3,993.01	3,058.86	2,644.44	1,322.23	697.95	18,501.68	18,753.48	251.80	
4,268.91	913.97	792.18	396.09	208.54	10,811.49	11,003.67	192.18	
4,653.64	1,552.03	1,334.79	667.40	354.13	12,978.57	11,442.63		1,535.94
2,432.97	2,360.14	2,038.57	1,019.29	538.51	12,230.62	11,883.95		346.67
6,126.36	4,354.95	3,774.65	1,887.32	993.68	27,652.95	25,823.28		1,829.67
4,275.91	2,807.26	2,433.19	1,216.60	640.54	16,544.82	15,466.39		1,078.43
4,033.02	2,487.01	2,145.56	1,072.78	567.47	13,705.00	13,293.97		411.03
3,074.44	2,591.00	2,217.98	1,108.99	591.19	14,667.15	15,360.03	692.88	

used for purposes of rural power districts.

NIAGARA SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Tillsonburg R.P.D.—Bayham, Dereham, Dorchester S., Houghton, Malahide, Middleton, Norwich N., Norwich S. and Walsingham N. twps.	206,565.46	103,282.73	103,282.73	10,974.97
Wallaceburg R.P.D.—Chatham, Dover and Sombra twps	156,756.85	77,994.45	78,762.40	6,520.24
Walsingham R.P.D.—Charlotteville, Houghton, Middleton, Walsingham N., Walsingham S. and Windham twps	*185,102.11	92,145.18	92,956.93	7,679.81
Walton R.P.D.—Grey, Hullett, McKillop, Morris, Wawanosh E. and Wawanosh W. twps	*80,234.66	38,464.08	41,770.58	3,950.64
Waterdown R.P.D.—Flamboro E., Flamboro W. and Nelson twps	215,555.41	97,424.55	118,130.86	25,002.39
Waterford R.P.D.—Townsend and Windham twps	120,424.80	60,212.40	60,212.40	5,833.44
Watford R.P.D.—Adelaide, Metcalfe and Warwick twps	23,940.99	11,970.50	11,970.49	893.16
Welland R.P.D.—Bertie, Crowland, Humberstone, Moulton, Pelham, Thorold, Wainfleet and Willoughby twps	676,713.61	334,123.41	342,590.20	30,316.99
Woodbridge R.P.D.—Albion, Chinguacousy, Etobicoke, King, Toronto, Toronto Gore, Vaughan and York N. twps.	*353,487.85	175,760.31	177,727.54	18,887.52
Woodstock R.P.D.—Blandford, Blenheim, Burford, Oxford E., Oxford N., Oxford W., Zorra E. and Zorra W. twps	232,334.77	116,167.39	116,167.38	16,041.02
Total capital	13,208,213.43	6,540,472.98	6,667,740.45	....
Non-operating capital	23,662.95	11,831.49	11,831.46	....
Grand totals	13,231,876.38	6,552,304.47	6,679,571.91	831,512.85

Note—Items marked * include portions of transmission lines aggregating $41,747.77

RURAL POWER DISTRICTS *N.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
7,563.14	4,708.36	4,080.97	2,040.49	1,074.32	30,442.25	28,271.87	....	2,170.38
5,585.28	3,591.06	3,097.19	1,548.60	819.38	21,161.75	21,727.07	565.32	....
4,645.86	3,855.76	3,325.73	1,662.87	879.78	22,049.81	22,009.76	....	40.05
3,955.06	1,924.59	1,602.01	801.00	439.14	12,672.44	12,169.88	....	502.56
13,672.43	5,268.53	4,152.37	2,076.18	1,202.14	51,374.04	49,100.61	....	2,273.43
3,170.01	2,731.65	2,367.66	1,183.83	623.29	15,909.88	16,521.22	611.34	....
788.56	551.41	477.93	238.96	125.82	3,075.84	3,116.83	40.99	....
26,227.87	15,552.36	13,313.12	6,656.56	3,548.61	95,615.51	92,721.70	....	2,893.81
12,387.75	7,887.62	6,797.70	3,398.85	1,799.73	51,159.17	51,723.27	564.10	....
8,750.04	5,289.02	4,584.26	2,292.13	1,206.81	38,163.28	36,314.12	....	1,849.16
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
529,535.07	301,774.53	259,028.24	129,514.12	68,856.46	2,120,221.27	2,080,385.53	44,179.03	84,014.77

used for purposes of rural power districts.

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Acton	Jan., 1913		13.13	13.13	
Agincourt	Nov., 1922	236.09			236.09
Ailsa Craig	Jan., 1916		200.65	200.65	
Alvinston	April, 1922	329.81			329.81
Amherstburg	Nov., 1925	1,826.33			1,826.33
Ancaster twp.	May, 1923		357.95	357.95	
Arkona	Dec., 1926		13.98	14.36	0.38
Aylmer	Mar., 1918	13.39			13.39
Ayr	Jan., 1915	60.09			60.09
Baden	May, 1912		161.80	161.80	
Beachville	Aug., 1912	471.04			471.04
Belle River	Dec., 1922		157.74	157.74	
Blenheim	Nov., 1915	255.45		4.33	259.78
Blyth	July, 1924	402.98			402.98
Bolton	Feb., 1915	539.36			539.36
Bothwell	Sept., 1915		147.24	147.24	
Brampton	Nov., 1911		1,839.46	1,839.46	
Brantford	Feb., 1914		4,475.92	4,475.92	
Brantford twp.	May, 1924		737.99	737.99	
Bridgeport	Mar., 1928		20.80	20.80	
Brigden	Jan., 1918	365.43			365.43
Brussels	July, 1924	408.95			408.95
Burford	June, 1915	194.68			194.68
Burgessville	Nov., 1916		220.22	220.22	
Caledonia	Oct., 1912		656.40	656.40	
Campbellville	Jan., 1925		33.14	33.14	
Cayuga	Nov., 1924		421.67	421.67	
Chatham	Feb., 1915		423.00	423.00	
Chippawa	Sept., 1919		32.01	41.83	9.82
Clifford	May, 1924		369.13	369.13	
Clinton	Mar., 1914		488.15	488.15	
Comber	May, 1915	286.25			286.25
Cottam	Nov., 1926	73.70			73.70
Courtright	Dec., 1923		251.67	251.67	
Dashwood	Sept., 1917		85.10	85.10	
Delaware	Mar., 1915	5.87			5.87
Dorchester	Dec., 1914		234.40	234.40	
Drayton	Mar., 1918		379.90	379.90	
Dresden	April, 1915	347.66			347.66
Drumbo	Dec., 1914	267.07			267.07
Dublin	Oct., 1917		408.48		
Dundas	Jan., 1911		1,495.92	1,495.92	
Dunnville	June, 1918	3,520.34			3,520.34
Dutton	Sept., 1915	354.72			354.72
East Windsor	Nov., 1922		1,012.44	1,012.44	

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	0.36	1,008.80		1,008.44	
7.06		144.84		151.90	
	7.89		148.69		156.58
8.75			192.05		183.30
49.53		1,284.84		1,334.37	
	9.73	127.96		118.23	
	0.38		129.71		130.09
0.40		541.79		542.19	
1.82		65.93		67.75	
	4.77	318.11		313.34	
16.33		211.35		227.68	
	5.19	163.33		158.14	
4.99		308.70		313.69	
11.92		293.47		305.39	
15.07		52.47		67.54	
	4.08	57.79		53.71	
	49.99	1,996.61		1,946.62	
	84.37		6,090.77		6,175.14
	22.00	265.55		243.55	
	0.61		120.47		121.08
7.29			12.09		4.80
11.70		456.97		468.67	
5.10		350.62		355.72	
	6.11		200.79		206.90
	19.06	208.28		189.22	
	0.91		111.96		112.87
	14.23		354.61		368.84
	11.54	1,644.61		1,633.07	
	0.49		175.78		176.27
	10.23	215.38		205.15	
	14.71	182.12		167.41	
8.31		323.91		332.22	
2.16			132.26		130.10
	10.07	170.43		160.36	
	2.84	4.92		2.08	
0.21			127.37		127.16
	7.35		161.18		168.53
	10.28	221.01		210.73	
7.14		895.87		903.01	
8.46			16.75		8.29
	16.34		219.72		644.54
	40.49	605.79		565.30	
62.60		1,011.59		1,074.19	
10.57		332.19		342.76	
	27.85		512.29		540.14

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Elmira	Nov., 1913		533.43	533.43	
Elora	Nov., 1914		506.83	516.81	9.98
Embro	Jan., 1915	362.25			362.25
Erieau	July, 1924	263.59			263.59
Erie Beach	July, 1925	78.13			78.13
Essex	Nov., 1923		31.15	31.15	
Etobicoke	Aug., 1917	2,863.51			2,863.51
Exeter	June, 1916		179.36	179.36	
Fergus	Nov., 1914		885.10	885.10	
Fonthill	June, 1926	319.23		2.32	321.55
Forest	Mar., 1917	876.05			876.05
Galt	May, 1911	624.46			624.46
Georgetown	Sept., 1913		811.96	811.96	
Glencoe	Aug., 1920	280.53			280.53
Goderich	Feb., 1914		1,434.08	1,434.08	
Granton	July, 1916		211.82	211.82	
Guelph	Dec., 1910		2,704.44	2,704.44	
Hagersville	Sept., 1913		1,960.06	1,960.06	
Hamilton	Feb., 1911		82,617.86	119,980.90	37,363.04
Harriston	July, 1916		619.44	619.44	
Harrow	Nov., 1923	133.21			133.21
Hensall	Jan., 1917		161.73	161.73	
Hespeler	Feb., 1911	2,911.93			2,911.93
Highgate	Dec., 1916	132.78		2.01	134.79
Humberstone	Oct., 1924		169.07	169.07	
Ingersoll	May, 1911		3,756.16		
Jarvis	Feb., 1924		988.06	988.06	
Kingsville	Nov., 1923	92.84			92.84
Kitchener	Jan., 1911		5,467.11	5,493.50	26.39
Lambeth	April, 1915	161.78			161.78
La Salle	Nov., 1925	108.47			108.47
Leamington	Nov., 1923		331.10	331.10	
Listowel	June, 1916		690.30	690.30	
London	Jan., 1911		6,797.96	6,797.96	
London Railway Commission	Aug., 1914		8,647.14	8,333.61	
					292.41
London twp	Jan., 1925	292.41			613.34
Long Branch	Jan., 1931	613.34			2.44
Lucan	Feb., 1915		83.25	85.69	155.28
Lynden	Nov., 1915	155.28			558.88
Markham	April, 1920	558.88			
Merlin	Dec., 1922		104.00	104.00	
Merritton	Nov., 1920		728.19	728.19	
Milton	April, 1913		1,109.85	1,109.85	
Milverton	June, 1916		251.76	251.76	
Mimico	May, 1912		178.62	178.62	

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
....	15.78	....	229.17	....	244.95
....	9.65	....	530.02	....	539.67
10.88	....	520.86	....	531.74	....
4.44	....	240.75	....	245.19	....
2.37	....	....	52.71	....	50.34
....	0.94	159.13	....	158.19	....
77.82	....	1,100.45	....	1,178.27	....
....	5.35	....	357.05	....	362.40
....	26.67	....	118.88	....	145.55
10.93	....	465.53	....	476.46	....
23.52	....	472.92	....	496.44	....
10.47	....	....	6,444.75	....	6,434.28
....	22.51	1,873.68	....	1,851.17	....
7.38	....	201.77	....	209.15	....
....	41.33	311.84	....	270.51	....
....	6.55	....	215.38	....	221.93
....	53.94	2,213.62	....	2,159.68	....
....	53.91	269.31	....	215.40	....
1,011.36	2,668.56	....	53,751.93	....	55,409.13
....	19.55	677.45	....	657.90	....
3.63	....	327.30	....	330.93	....
....	4.75	....	30.44	....	35.19
67.34	....	593.82	....	661.16	....
2.90	....	140.29	....	143.19	....
....	5.32	134.78	....	129.46	....
....	150.25	....	2,050.21	....	5,956.62
....	29.02	....	391.72	....	420.74
2.71	....	....	232.29	....	229.58
....	164.68	....	2,949.44	....	3,114.12
5.71	....	63.01	....	68.72	....
3.27	....	....	352.26	....	348.99
....	9.03	....	1,141.48	....	1,150.51
....	19.59	1,074.20	....	1,054.61	....
....	188.48	....	23,562.06	....	23,750.54
....	328.53	....	6,855.79	....	7,497.85
7.88	....	34.74	....	42.62	....
16.67	....	702.97	....	719.64	....
....	1.59	....	134.90	....	136.49
5.53	....	217.05	....	222.58	....
13.10	....	346.19	....	359.29	....
....	3.23	97.92	....	94.69	....
....	20.43	....	2,574.69	....	2,595.12
....	30.29	....	113.82	....	144.11
....	9.63	196.82	....	187.19	....
....	6.58	....	612.17	....	618.75

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Mitchell	Sept., 1911		179.63	179.63	
Moorefield	Mar., 1918		171.44	171.44	
Mount Brydges	Mar., 1915	116.29			116.29
Newbury	Mar., 1921	48.58			48.58
New Hamburg	Mar., 1911	447.67			447.67
New Toronto	Feb., 1914	5,935.12			5,935.12
Niagara Falls	Dec., 1915		49,899.39	31,494.65	
Niagara-on-the-Lake	Aug., 1919		65.87	65.87	
Norwich	May, 1912		223.63	223.63	
Oil Springs	Feb., 1918	584.75			584.75
Otterville	Feb., 1916		173.17	173.17	
Palmerston	July, 1916		334.69	334.69	
Paris	Feb., 1914		509.23	509.23	
Parkhill	May, 1920	98.32			98.32
Petrolia	May, 1916	2,343.97			2,343.97
Plattsville	Dec., 1914	271.58			271.58
Point Edward	Nov., 1916	1,666.03			1,666.03
Port Colborne	Mar., 1920	1,255.29			1,255.29
Port Credit	Aug., 1912		831.37	831.37	
Port Dalhousie	Nov., 1912		187.03	187.03	
Port Dover	Dec., 1921	1,279.15			1,279.15
Port Rowan	Nov., 1926	302.22			302.22
Port Stanley	April, 1912	1,057.22			1,057.22
Preston	Jan., 1911		1,224.13	1,224.13	
Princeton	Jan., 1915	536.65			536.65
Queenston	Mar., 1921	90.68			90.68
Richmond Hill	June, 1925	1,755.00			1,755.00
Ridgetown	Dec., 1915	35.71			35.71
Riverside	Nov., 1922		684.83	684.83	
Rockwood	Sept., 1913	111.11			111.11
Rodney	Feb., 1917		394.84	394.84	
St. Catharines	April, 1914		5,286.31	5,286.31	
St. Clair Beach	Nov., 1922		105.30	105.30	
St. George	Sept., 1915	216.04			216.04
St. Jacobs	Sept., 1917		392.27	392.27	
St. Marys	May, 1911		2,056.97	2,056.97	
St. Thomas	April, 1911	1,821.24			1,821.24
Sandwich	Feb., 1924	1,050.70			1,050.70
Sarnia	Dec., 1916	11,211.35			11,211.35
Scarboro twp	Aug., 1918	4,134.29			4,134.29
Seaforth	Nov., 1911		312.63	312.63	
Simcoe	Aug., 1915	2,237.43			2,237.43
Springfield	Aug., 1917		65.49	65.49	
Stamford twp	Nov., 1916		1,485.15	1,485.15	
Stouffville	Sept., 1923	268.79			268.79

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	5.35		555.72		561.07
	5.34	56.05		50.71	
3.50		72.30		75.80	
1.41		97.29		98.70	
12.02		414.56		426.58	
119.09		6,485.06		6,604.15	
	736.19		21,320.74		40,461.67
	1.96	779.56		777.60	
	6.15		363.85		370.00
11.34		196.98		208.32	
	4.84		152.47		157.31
	10.78	901.64		890.86	
	14.01		551.44		565.45
3.50			248.51		245.01
63.19		1,869.81		1,933.00	
7.27		51.48		58.75	
27.57		1,950.17		1,977.74	
25.17		908.99		934.16	
	23.78	538.97		515.19	
	6.62	164.56		157.94	
39.41		831.93		871.34	
6.03		201.28		207.31	
34.87		1,197.54		1,232.41	
	36.22		1,693.77		1,729.99
11.22		215.50		226.72	
2.12		83.09		85.21	
64.47		255.90		320.37	
0.99		20.33		21.32	
	18.84	663.99		645.15	
2.99		230.99		233.98	
	10.34		547.39		557.73
	123.50		6,192.78		6,316.28
	2.90	88.39		85.49	
4.64		515.73		520.37	
	11.18		109.29		120.47
	61.99	1,071.06		1,009.07	
48.30			2,279.12		2,230.82
31.32			959.15		927.83
185.53		8,552.94		8,738.47	
112.81		2,569.26		2,682.07	
	7.47	137.18		129.71	
43.89		1,904.10		1,947.99	
	1.77		233.72		235.49
	28.32		1,848.78		1,877.10
7.13			18.11		10.98

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Stratford	Jan., 1911	3,133.08			3,133.08
Strathroy	Dec., 1914	2,187.65			2,187.65
Sutton	Aug., 1923	524.95			524.95
Tavistock	Nov., 1916	658.13			658.13
Tecumseh	Nov., 1922		109.48	109.48	
Thamesford	Feb., 1914		69.73	69.73	
Thamesville	Oct., 1915	354.24			354.24
Thedford	May, 1922	498.03			498.03
Thorndale	Mar., 1914	59.66			59.66
Thorold	Jan., 1921	47.87			47.87
Tilbury	April, 1915		136.59	136.59	
Tillsonburg	Aug., 1911	45.88			45.88
Toronto	June, 1911		117,913.39	118,851.10	937.71
Toronto twp.	Aug., 1913	1,496.95			1,496.95
Walkerville	Nov., 1914		4,835.51	4,835.51	
Wallaceburg	Feb., 1915		701.54	701.54	
Wardsville	June, 1921	39.40		3.77	43.17
Waterdown	Nov., 1911	137.64			137.64
Waterford	April, 1915	494.84			494.84
Waterloo	Dec., 1910		14,148.87	14,203.87	
Watford	Sept., 1917	1,047.77			1,047.77
Welland	Sept., 1917		684.45	684.45	
Wellesley	Nov., 1916	46.44			46.44
West Lorne	Jan., 1917	51.54			51.54
Weston	Jan., 1911	1,698.00			1,698.00
Wheatley	Feb., 1924		209.80	209.80	
Windsor	Oct., 1914		7,469.05	7,469.05	
Woodbridge	Dec., 1914	478.90			478.90
Woodstock	Jan., 1911		4,584.88	4,584.88	
Wyoming	Nov., 1916	264.14			264.14
York East twp.	July, 1925	2,396.63			2,396.63
York North twp.	Nov., 1923	1,229.81		14.85	1,244.66
Zurich	Sept., 1917		119.38	119.38	
Toronto Transportation Commission	Jan., 1927	389.70			389.70
Totals municipalities		76,944.31	352,164.16	367,713.29	115,321.35
RURAL POWER DISTRICTS*					
Acton R.P.D.	Feb., 1928		714.71	743.30	
Ailsa Craig R.P.D.	Sept., 1930		30.58	31.80	
Alvinston R.P.D.	June, 1929		626.42	302.68	
Amherstburg R.P.D.	Nov., 1923	31,766.35		340.38	370.97
Aylmer R.P.D.	Nov., 1922	14,460.63		65.45	65.45

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*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments
or Charged to each Municipality in respect of power supplied in the year
as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
51.16		3,520.51		3,571.67	
47.83		1,499.36		1,547.19	
10.56		391.29		401.85	
18.82		1,280.89		1,299.71	
	3.01	410.37		407.36	
	2.03	464.13		462.10	
9.39		477.91		487.30	
13.94		148.56		162.50	
2.12			81.82		79.70
1.27			911.97		910.70
	3.82	179.78		175.96	
1.07			1,194.50		1,193.43
	3,525.35		8,283.13		11,808.48
30.53		1,843.47		1,874.00	
	133.01		9,265.52		9,398.53
	20.91	1,273.96		1,253.05	
1.04		9.70		10.74	
2.85		154.01		156.86	
14.21		415.26		429.47	
	209.70		3,142.98		3,297.68
32.62		870.63		903.25	
	22.88		1,358.02		1,380.90
1.21		26.59		27.80	
1.11			315.00		313.89
38.33			54.90		16.57
	5.89		106.98		112.87
	207.09		20,987.66		21,194.75
14.38		275.55		289.93	
	130.64		2,838.11		2,968.75
7.90		74.52		82.42	
32.30		1,652.82		1,685.12	
20.30			979.10		958.80
	3.47	26.31		22.84	
11.62		971.45		983.07	
2,761.66	9,663.36	74,895.33	198,002.18	75,827.28	228,663.74
	28.59		213.61		213.61
	1.22		159.93		159.93
	25.06		259.78		608.58
1,269.72		1,033.74		34,039.22	
578.43		1,418.58		16,457.64	

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Rural power district*	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Ayr R.P.D.	July, 1926		308.58	320.92	
Baden R.P.D.	Sept., 1922		6,230.65	6,479.88	
Beamsville R.P.D.	Jan., 1923	44,918.13		64.57	64.57
Belle River R.P.D.	Dec., 1922	33,776.42		46.90	47.30
Blenheim R.P.D.	July, 1924	18,787.27			
Bond Lake R.P.D.	Mar., 1924	53,817.20		15.79	22.68
Bothwell R.P.D.	Dec., 1923	6,459.85		170.14	1,686.53
Brampton R.P.D.	Nov., 1923		622.76	647.67	28.21
Brant R.P.D.	Oct., 1922		9,977.18	10,429.73	53.46
Brigden R.P.D.	Jan., 1927		4,607.34	2,760.10	
Burford R.P.D.	Dec., 1926	2,037.82		16.65	55.11
Caledonia R.P.D.	Oct., 1925		6,695.74	7,817.49	853.92
Chatham R.P.D.	May, 1922	18,258.59		29.35	41.94
Chippawa R.P.D.	July, 1922	3,288.62			
Clinton R.P.D.	July, 1928		3,509.76	3,722.15	121.86
Delaware R.P.D.	Oct., 1922	2,834.44		8.09	70.58
Dorchester R.P.D.	Dec., 1921		1,933.28	2,079.54	71.45
Dresden R.P.D.	May, 1928		564.79	587.38	
Drumbo R.P.D.	Aug., 1922	128.97		52.40	52.40
Dundas R.P.D.	Jan., 1922	20,644.73		4.76	4.76
Dunnville R.P.D.	July, 1928		5,149.99	4,025.22	80.76
Dutton R.P.D.	Feb., 1926		3,446.25	3,584.10	
Elmira R.P.D.	June, 1926		3,453.96	2,461.47	
Elora R.P.D.	Jan., 1926		3,778.85	3,930.01	
Essex R.P.D.	Nov., 1924	21,325.92		19.92	19.92
Exeter R.P.D.	Nov., 1922	12,352.37		17.05	17.05
Forest R.P.D.	Nov., 1926		368.28	434.33	51.32
Galt R.P.D.	Oct., 1922	2.261.88			1.22
Georgetown R.P.D.	Nov., 1924	698.86		179.32	179.32
Goderich R.P.D.	June, 1925		3,728.05	1,588.98	7.80
Grantham R.P.D.	Nov., 1924	451.26		95.00	146.65
Guelph R.P.D.	Jan., 1925		10,660.74	7,407.54	149.64
Haldimand R.P.D.	Oct., 1925		361.20	575.53	865.51
Harriston R.P.D.	Dec., 1929		2,312.89	1,671.28	57.05
Harrow R.P.D.	Nov., 1923	19,683.08		8.88	8.88
Ingersoll R.P.D.	Oct., 1922		6,675.86	6,943.93	
Jordan R.P.D.	May, 1922	12,385.29		33.88	38.08
Keswick R.P.D.	Mar., 1924		9,507.31	38.64	46.74
Kingsville R.P.D.	Nov., 1923	39,242.14		38.38	132.54
Listowel R.P.D.	Oct., 1926		2,126.12	2,211.17	
London R.P.D.	Nov., 1922	17,457.43		45.54	43.41
Lucan R.P.D.	June, 1926		352.58	366.68	
Lynden R.P.D.	Feb., 1922		2,395.89	2,715.80	224.07

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*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	12.34		818.83		818.83
	249.23		2,504.64		2,504.64
1,796.73		1,279.20		47,994.06	
1,351.05		951.38		36,078.45	
751.49		2,516.66		22,055.42	
2,152.47		1,646.46		57,609.24	
230.66		383.71		5,557.83	
	25.47		1,725.15		1,753.92
	399.09		3,228.25		3,228.25
	184.29		702.61		2,734.14
80.23		93.45		2,173.04	
	267.83		994.04		994.04
730.01		471.20		19,447.21	
131.54			325.59	3,094.57	
	141.44		1,651.39		1,702.30
113.38		701.55		3,586.88	
	77.41	224.74		222.14	
	22.59		716.31		716.31
5.16			1,885.90		1,751.77
825.79		1,380.56		22,851.08	
	206.00		1,996.34		3,407.87
	137.85		2,248.68		2,248.68
	138.16		990.19		2,120.84
	151.16		2,089.29		2,089.29
853.04		1,913.94		24,092.90	
494.09		131.71		12,978.17	
	14.73	425.37		425.37	
90.45			442.07	1,909.04	
27.95			1,508.02		781.21
	149.20		1,998.52		4,294.59
16.31			2,651.24		2,235.32
	424.32		2,536.06		6,363.22
	32.37		3,040.05		3,723.60
	92.69		1,074.85		1,866.20
787.32		3,131.14		23,601.54	
	267.03		4,137.77		4,136.73
495.28			2,235.14	10,641.23	
	380.49		4,078.54		13,974.44
1,569.28		1,299.31		42,016.57	
	85.05		2,150.85		2,150.85
698.09			822.16	17,335.49	
	14.10		36.02		36.02
	95.84		1,785.09		1,785.09

NIAGARA

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Rural power district*	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Markham R.P.D.	Dec., 1922	32,398.23			
Merlin R.P.D.	Nov., 1928		5,418.05	5,634.77	
Milton R.P.D.	Jan., 1925	4,842.06			
Milverton R.P.D.	Aug., 1927		5,628.93	3,478.34	3.54
Mitchell R.P.D.	Dec., 1925	1,986.41			6.35
Newmarket R.P.D.	Mar., 1924	6,843.32		1.43	2.15
Niagara R.P.D.	Jan., 1922	19,942.28			
Norwich R.P.D.	May, 1925	5,675.39		53.14	69.00
Oil Springs R.P.D.	Dec., 1925	2,871.43			
Palmerston R.P.D.	Oct., 1926		6,208.19	4,581.51	12.15
Petrolia R.P.D.	Aug., 1923		625.54	650.56	
Preston R.P.D.	April, 1922	7,640.74		36.75	36.75
Ridgetown R.P.D.	Mar., 1922	1,547.39		98.90	157.88
St. Jacobs R.P.D.	Nov., 1922	547.61			
St. Marys R.P.D.	Dec., 1927		11,427.10	11,884.18	66.94
St. Thomas R.P.D.	Aug., 1923	20,239.26		30.44	33.34
Saltfleet R.P.D.	Feb., 1922	2,967.79		185.22	188.61
Sandwich R.P.D.	July, 1922	57,122.09		425.61	468.09
Sarnia R.P.D.	June, 1923	16,385.27			18.00
Scarboro R.P.D.	Dec., 1923	29,875.94		41.94	45.54
Seaforth R.P.D.	Nov., 1927		649.50	22.40	22.40
Simcoe R.P.D.	Nov., 1922	2,303.74		23.55	30.32
Stamford R.P.D.	Mar., 1922	6,503.41			
Stratford R.P.D.	July, 1924		1,078.08	1,121.20	8.02
Strathroy R.P.D.	Dec., 1926		735.26	764.67	37.30
Streetsville R.P.D.	Nov., 1922	9,679.55		212.62	226.19
Tavistock R.P.D.	April, 1923		8,991.28	9,350.93	
Thamesville R.P.D.	Nov., 1927	507.92			
Tilbury R.P.D.	Dec., 1923	5,672.74		40.50	40.50
Tillsonburg R.P.D.	Dec., 1923	4,633.66		42.96	49.53
Wallaceburg R.P.D.	Jan., 1923	8,533.22		15.62	15.62
Walsingham R.P.D.	Dec., 1926	4,611.27		148.61	149.87
Walton R.P.D.	Nov., 1924	1,981.40		69.90	69.90
Waterdown R.P.D.	Oct., 1922	43,849.81		939.62	939.62
Waterford R.P.D.	Nov., 1923		958.00	1,014.54	18.22
Watford R.P.D.	Dec., 1929		264.26	274.83	
Welland R.P.D.	April, 1922	31,416.33		332.31	374.09
Woodbridge R.P.D.	Jan., 1923	15,838.30		104.38	155.96
Woodstock R.P.D.	Feb., 1922	10,181.57		3.60	4.14
Totals, Rural power districts		733,635.38	132,123.95	116,714.80	8,931.17
Totals, Municipalities		76,944.31	352,164.16	367,713.29	115,321.35
Grand Totals		810,579.69	484,288.11	484,428.09	124,252.52

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*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

SYSTEM *N.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,295.93		5,203.01		38,897.17	
	216.72		1,561.51		1,561.51
193.68			1,109.10	3,926.64	
	225.16		1,859.58		4,238.87
79.39		81.77		2,141.22	
273.70			159.75	6,956.55	
797.69		1,466.90		22,206.87	
226.69			1,097.05	4,789.17	
114.86		303.53		3,289.82	
	248.33		2,240.93		4,128.09
	25.02		92.29		92.29
305.63			1,991.54	5,954.83	
59.85			1,031.31	516.95	
21.90			2,276.25		1,706.74
	458.54		2,770.35		2,838.75
809.48			1,164.03	19,881.81	
118.61		5,257.91		8,340.92	
2,283.52			316.11	59,047.02	
655.17		2,507.73		19,530.17	
1,195.04		7,436.87		38,504.25	
	25.98		406.93		1,082.41
92.07		251.80		2,640.84	
260.14		192.18		6,955.73	
	43.21		1,535.94		1,544.05
	30.52		346.67		385.08
386.91			1,829.67	8,223.22	
	359.65		1,078.43		1,078.43
20.32			411.03	117.21	
226.91		692.88		6,592.53	
185.14			2,170.38	2,641.85	
341.33		565.32		9,439.87	
184.41			40.05	4,754.37	
79.26			502.56	1,558.10	
1,753.99			2,273.43	43,330.37	
	38.32	611.34		611.34	
	10.57	40.99		40.99	
1,255.60			2,893.81	29,736.34	
632.49		564.10		16,983.31	
407.25			1,849.16	8,739.12	
29,305.43	5,305.57	44,179.03	84,014.77	780,515.67	87,056.49
2,761.66	9,663.36	74,895.33	198,002.18	75,827.28	228,663.74
32,067.09	14,968.93	119,074.36	282,016.95	856,342.95	315,720.23

NIAGARA SYSTEM

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$20,375,039.60	
Deduct:		
Expenditures to October 31, 1933	1,688,849.71	
Balance brought forward October 31, 1933		$18,686,189.89
Added during the year ending October 31, 1934:		
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them	$1,062,515.82	
Amounts included in costs of distribution of power within rural power districts	259,028.24	
Provision against equipment employed in respect of contracts with private companies which purchased power and against equipment in local distribution systems	305,620.76	
Payments by Ottawa Valley Power Company in respect of Chats Falls transformer station, under agreement	11,160.17	
Minor credits to reserve upon transfers of lines and equipment	8,349.13	
Interest at 4% per annum on the monthly balances at the credit of the account	747,447.59	
		2,394,121.71
		$21,080,311.60
Deduct:		
Expenditures during the year ending October 31, 1934		113,033.30
Balance carried forward October 31, 1934		$20,967,278.30

NIAGARA SYSTEM

Reserve for Obsolescence and Contingencies—October 31, 1934

Balance brought forward October 31, 1933		$9,106,600.64	
Adjustment of cost of power in year 1933 in respect of certain company contracts, which were revised to a cost basis		453.16	$9,107,053.80
Added during the year ending October 31, 1934:			
Amounts included in the costs of distribution of power within rural power districts		$129,514.12	
Share of profits on sale of securities in which a portion of the reserve funds of the Commission stood invested		21,488.53	
Provision in respect of certain rural lines transferred to Niagara System		1,897.97	
Provision for Contingencies in respect of the Chats Falls transformer station held jointly by the Ottawa Power Company and the Commission		16,510.13	
Commission's share of American and Sterling exchange (net credit) on the transfer of funds to New York and London by the Province of Ontario to meet capital retirements, inclusive of adjustments of amounts overcharged the Commission in years 1932 and 1933. Note—Above amount is exclusive of exchange on interest coupons.		63,042.56	
Interest at 4% per annum on monthly balances at the credit of the account		364,264.03	596,717.34
			$9,703,771.14
Contingencies met with during the year incidental to plant operation		$57,341.62	
Interest on Commission's investment in the Terminal Building at Hamilton $36,339.29 together with the operating loss for the year on the building of $3,731.49 (before provisions for renewals and sinking fund)		40,070.78	
Cost to the Commission (including provision for sinking fund $463,860.08 and renewals $305,620.76) of power delivered to private companies and customers under flat rate contracts in excess of the revenue received from them		1,348,697.11	
Interest on Commission's advances, and investment in the capital stock of the Hamilton Street Railway	$156,907.79		
in excess of profit for the year (before provision for renewal of road and equipment) from operation of the street railway	25,731.60	131,176.19	
Reversing amounts credited to contingencies reserves in the years 1932 and 1933 in respect of adjustment of amounts charged to City of Hamilton for 60-cycle power supplied in these years		37,363.04	
Amount appropriated from the contingency reserve and applied proportionately to each municipality in reduction of the cost of delivery of power thereto in the year ending October 31, 1934		1,521,131.25	3,135,779.99
Balance carried forward October 31, 1934			$6,567,991.15

NIAGARA SYSTEM *SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder as part of the cost of power delivered thereto, together with its proportionate share of other sinking funds provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Municipality	Period of years ending Oct. 31, 1934	Amount	Municipality	Period of years ending Oct. 31, 1934	Amount
		$ c.			$ c.
Acton	17 years	39,496.60	Elmira	16 years	51,067.54
Agincourt	10 "	5,977.41	Elora	15 "	24,632.20
Ailsa Craig	14 "	10,326.94	Embro	15 "	7,183.10
Alvinston	11 "	10,682.38	Erieau	11 "	3,433.22
Amherstburg	17 "	30,980.31	Erie Beach	10 "	854.37
Ancaster twp.	11 "	9,432.10	Essex	11 "	17,634.36
Arkona	8 "	3,415.16	Etobicoke	12 "	106,902.55
Aylmer	11 "	25,372.96	Exeter	13 "	25,838.84
Ayr	15 "	9,069.93	Fergus	15 "	32,735.24
Baden	17 "	20,951.67	Fonthill	9 "	3,286.68
Beachville	17 "	26,195.49	Forest	12 "	18,861.78
Belle River	12 "	5,846.56	Galt	18 "	343,202.53
Blenheim	14 "	23,423.97	Georgetown	16 "	61,884.68
Blyth	11 "	5,601.56	Glencoe	11 "	12,064.89
Bolton	14 "	11,594.40	Goderich	15 "	77,619.35
Bothwell	14 "	11,986.22	Granton	13 "	5,231.62
Brampton	18 "	103,319.95	Guelph	18 "	408,030.88
Brantford	15 "	530,929.09	Hagersville	16 "	51,378.73
Brantford twp.	11 "	18,138.49	Hamilton	18 "	2,509,831.45
Bridgeport	7 "	3,071.37	Harriston	13 "	21,007.34
Brigden	12 "	7,753.45	Harrow	11 "	12,915.13
Brussels	11 "	7,802.49	Hensall	13 "	9,656.41
Burford	14 "	8,456.43	Hespeler	18 "	64,440.55
Burgessville	13 "	3,481.08	Highgate	13 "	6,421.85
Caledonia	17 "	13,726.27	Humberstone	11 "	11,183.77
Campbellville	10 "	1,344.24	Ingersoll	18 "	115,594.19
Cayuga	10 "	5,318.80	Jarvis	11 "	8,786.49
Chatham	14 "	244,910.27	Kingsville	11 "	23,734.07
Chippawa	12 "	10,688.98	Kitchener	18 "	781,227.72
Clifford	11 "	3,866.53	Lambeth	14 "	5,913.61
Clinton	15 "	29,163.38	La Salle	9 "	7,853.54
Comber	14 "	12,377.19	Leamington	11 "	44,229.84
Cottam	8 "	2,241.59	Listowel	13 "	45,689.81
Courtright	11 "	3,442.98	London	18 "	1,416,043.89
Dashwood	12 "	5,320.48	London Ry. Comm.	15 "	91,307.81
Delaware	14 "	1,807.27	London twp.	10 "	9,502.15
Dorchester	15 "	4,472.71	Long Branch	4 "	8,831.29
Drayton	11 "	7,548.33	Lucan	14 "	12,242.49
Dresden	14 "	19,749.25	Lynden	14 "	9,126.37
Drumbo	15 "	4,038.57	Markham	11 "	10,457.40
Dublin	12 "	3,689.72	Merlin	11 "	7,831.92
Dundas	18 "	89,560.24	Merritton	13 "	62,634.58
Dunnville	11 "	36,067.19	Milton	16 "	67,705.64
Dutton	14 "	12,290.97	Milverton	13 "	29,573.74
East Windsor	12 "	139,261.93	Mimico	17 "	83,618.27

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder as part of the cost of power delivered thereto, together with its proportionate share of other sinking funds provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Municipality	Period of years ending Oct. 31, 1934	Amount	Municipality	Period of years ending Oct. 31, 1934	Amount
		$ c.			$ c.
Mitchell	18 years	27,708.14	Stamford twp.	13 years	54,280.79
Moorefield	11 "	3,931.96	Stouffville	11 "	8,912.62
Mount Brydges	14 "	4,460.85			
Newbury	11 "	2,767.14	Stratford	18 "	375,971.07
New Hamburg	18 "	31,661.77	Strathroy	15 "	52,620.90
			Sutton	11 "	8,303.72
New Toronto	15 "	259,357.33	Tavistock	13 "	26,989.11
Niagara Falls	14 "	356,603.43	Tecumseh	12 "	14,944.13
Niagara-on-the-Lake	11 "	18,308.81			
Norwich	17 "	23,485.72	Thamesford	15 "	10,643.46
Oil Springs	11 "	16,048.30	Thamesville	14 "	10,545.78
			Thedford	11 "	5,462.05
Otterville	13 "	5,127.05	Thorndale	15 "	5,593.83
Palmerston	13 "	26,653.44	Thorold	12 "	52,920.28
Paris	15 "	71,286.89			
Parkhill	11 "	11,259.93	Tilbury	14 "	27,410.33
Petrolia	13 "	63,863.94	Tillsonburg	18 "	52,836.24
			Toronto	18 "	11,464,279.18
Plattsville	15 "	5,589.37	Toronto twp.	16 "	56,414.19
Point Edward	12 "	29,386.60	Walkerville	15 "	395,616.59
Port Colborne	13 "	55,085.73			
Port Credit	17 "	22,366.52	Wallaceburg	14 "	113,492.49
Port Dalhousie	13 "	19,140.76	Wardsville	11 "	2,124.80
			Waterdown	18 "	14,627.98
Port Dover	11 "	14,397.07	Waterford	14 "	19,469.40
Port Rowan	8 "	3,876.69	Waterloo	18 "	158,041.94
Port Stanley	17 "	24,446.66			
Preston	18 "	168,456.92	Watford	12 "	13,162.12
Princeton	15 "	5,171.78	Welland	12 "	165,902.51
			Wellesley	13 "	10,780.94
Queenston	11 "	4,112.51	West Lorne	13 "	17,748.82
Richmond Hill	10 "	9,707.40	Weston	18 "	139,319.79
Ridgetown	14 "	25,643.35			
Riverside	12 "	48,821.25	Wheatley	11 "	7,289.53
Rockwood	16 "	7,008.90	Windsor	15 "	1,166,493.19
			Woodbridge	15 "	17,807.19
Rodney	12 "	7,797.20	Woodstock	18 "	233,803.35
St. Catharines	13 "	325,288.97	Wyoming	13 "	4,964.31
St. Clair Beach	12 "	3,989.36			
St. George	14 "	8,522.48	York East twp.	10 "	137,501.58
St. Jacobs	12 "	8,820.18	York North twp.	11 "	60,834.26
			Zurich	12 "	8,299.79
St. Marys	18 "	84,613.22			
St. Thomas	18 "	293,235.39	Toronto Trans. Com.	13 "	136,876.98
Sandwich	11 "	140,799.88	Sandwich, Windsor & Amherstburg Ry. Co.	12 "	114,149.86
Sarnia	13 "	367,445.02			
Scarboro twp.	11 "	97,483.60	Windsor, Essex & Lake Shore Railway Association	5 "	9,681.42
Seaforth	18 "	40,569.35			
Simcoe	14 "	56,252.93			
Springfield	12 "	5,819.93			

NIAGARA SYSTEM *SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder as part of the cost of power delivered thereto, together with its proportionate share of other sinking funds provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Rural power district*	Period of years ending Oct. 31, 1934	Amount	Rural power district*	Period of years ending Oct. 31, 1934	Amount
		$ c.			$ c.
Acton R.P.D.	7 years	536.28	London R.P.D.	12 years	64,189.91
Ailsa Craig R.P.D.	5 “	259.40	Lucan R.P.D.	9 “	3,981.62
Alvinston R.P.D.	6 “	269.33	Lynden R.P.D.	13 “	10,028.00
Amherstburg R.P.D.	11 “	29,668.18	Markham R.P.D.	12 “	17,933.18
Aylmer R.P.D.	13 “	15,446.78	Merlin R.P.D.	6 “	7,882.11
Ayr R.P.D.	9 “	2,052.13	Milton R.P.D.	10 “	7,604.15
Baden R.P.D.	13 “	15,080.25	Milverton R.P.D.	8 “	3,266.21
Beamsville R.P.D.	12 “	44,721.05	Mitchell R.P.D.	9 “	8,803.17
Belle River R.P.D.	12 “	14,102.46	Newmarket R.P.D.	11 “	11,036.28
Blenheim R.P.D.	11 “	7,612.72	Niagara R.P.D.	13 “	21,697.75
Bond Lake R.P.D.	11 “	34,731.36	Norwich R.P.D.	10 “	19,430.06
Bothwell R.P.D.	11 “	6,740.42	Oil Springs R.P.D.	9 “	2,930.82
Brampton R.P.D.	11 “	5,720.05	Palmerston R.P.D.	8 “	2,048.21
Brant R.P.D.	13 “	19,636.30	Petrolia R.P.D.	12 “	1,612.55
Brigden R.P.D.	8 “	3,325.84	Preston R.P.D.	13 “	39,526.94
Burford R.P.D.	8 “	6,100.29	Ridgetown R.P.D.	13 “	19,298.73
Caledonia R.P.D.	10 “	12,057.33	St. Jacobs R.P.D.	12 “	12,371.12
Chatham R.P.D.	13 “	22,484.68	St. Marys R.P.D.	7 “	10,786.37
Chippawa R.P.D.	13 “	7,115.55	St. Thomas R.P.D.	12 “	27,680.62
Clinton R.P.D.	7 “	6,446.23	Saltfleet R.P.D.	13 “	45,426.22
Delaware R.P.D.	12 “	17,445.05	Sandwich R.P.D.	13 “	52,918.89
Dorchester R.P.D.	13 “	23,063.32	Sarnia R.P.D.	12 “	27,056.49
Dresden R.P.D.	7 “	1,542.10	Scarboro R.P.D.	11 “	13,126.49
Drumbo R.P.D.	13 “	7,224.47	Seaforth R.P.D.	7 “	2,321.82
Dundas R.P.D.	13 “	23,878.68	Simcoe R.P.D.	12 “	8,874.21
Dunnville R.P.D.	7 “	1,319.38	Stamford R.P.D.	13 “	6,947.48
Dutton R.P.D.	9 “	4,814.26	Stratford R.P.D.	11 “	9,698.18
Elmira R.P.D.	9 “	2,401.30	Strathroy R.P.D.	8 “	4,657.20
Elora R.P.D.	9 “	6,013.21	Streetsville R.P.D.	12 “	15,817.07
Essex R.P.D.	10 “	11,945.97	Tavistock R.P.D.	12 “	8,722.93
Exeter R.P.D.	12 “	15,310.98	Thamesville R.P.D.	7 “	5,251.82
Forest R.P.D.	8 “	2,179.57	Tilbury R.P.D.	11 “	6,601.90
Galt R.P.D.	13 “	7,368.76	Tillsonburg R.P.D.	11 “	22,952.51
Georgetown R.P.D.	10 “	6,056.58	Wallaceburg R.P.D.	12 “	14,091.70
Goderich R.P.D.	10 “	4,740.70	Walsingham R.P.D.	8 “	7,928.18
Grantham R.P.D.	10 “	24,424.37	Walton R.P.D.	10 “	5,278.75
Guelph R.P.D.	10 “	12,947.74	Waterdown R.P.D.	12 “	23,028.67
Haldimand R.P.D.	10 “	7,207.56	Waterford R.P.D.	11 “	7,399.14
Harriston R.P.D.	5 “	1,001.95	Watford R.P.D.	5 “	991.47
Harrow R.P.D.	11 “	14,885.06	Welland R.P.D.	13 “	61,992.15
Ingersoll R.P.D.	13 “	16,963.15	Woodbridge R.P.D.	12 “	33,119.24
Jordan R.P.D.	13 “	9,862.79	Woodstock R.P.D.	13 “	28,296.45
Keswick R.P.D.	11 “	17,906.03			
Kingsville R.P.D.	11 “	38,128.45	Total		$27,539,414.02
Listowel R.P.D.	8 “	6,182.18			

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

NIAGARA SYSTEM

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933	$24,564,512.19	
Add: Adjustments in respect of previous years' assessments	3,155.37	
		$24,567,667.56
Provided in the year ending October 31, 1934 in respect of:		
Advances by the Province for construction of transmission lines and stations	$590,161.61	
Advances by the Province for construction of rural power districts	68,856.46	
Advances by the Province for construction of pipe line to Ontario Power generating station	36,923.85	
Advances by the Province for construction of Queenston-Chippawa development	809,538.14	
Bonds issued and assumed by the Commission in connection with the purchase of the properties of the Ontario Power Company, Toronto Power Company, Essex system and Thorold system	481,727.68	
Provision in respect of certain rural lines transferred to Niagara system	1,832.01	
Interest at 4% per annum on amounts standing at the credit of the reserve accounts	982,706.71	
		2,971,746.46
Total		$27,539,414.02

NIAGARA SYSTEM—RURAL LINES

Statement showing Interest, Sinking Fund, Renewals and Contingencies charged by the Commission to the Municipalities which operate the respective rural lines for the year ending October 31, 1934

Operated by	Capital cost	Interest	Sinking fund	Renewals	Contingencies	Total interest, sinking fund, renewals and contingencies charged
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Milton—1 year	439.92	16.40	5.95	6.61	3.31	32.27
Milton—3 months* (Nov.-Jan.)	15,469.92	197.28	71.60	79.55	39.77	388.20
Welland	19,617.60	823.94	353.12	392.35	196.18	1,765.59
Totals	20,057.52	1,037.62	430.67	478.51	239.26	2,186.06

*Lines transferred to Niagara transmission lines, Feb. 1, 1934.

NIAGARA SYSTEM—RURAL LINES

Reserves for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$6,492.65	
Deduct:		
Expenditures to October 31, 1933	288.03	
Balance brought forward October 31, 1933		$6,204.62
Added during the year ending October 31, 1934:		
By charges against the municipalities who operate the lines	$478.51	
Interest at 4% per annum on monthly balances at the credit of the account	221.30	
		699.81
		$6,904.43
Deduct:		
Share of renewals reserve on rural lines transferred to Niagara system		2,792.12
Balance carried forward October 31, 1934		$4,112.31

NIAGARA SYSTEM—RURAL LINES

Reserve for Contingencies—October 31, 1934

Balance brought forward October 31, 1933		$3,047.63
Added during the year ending October 31, 1934:		
By charges against municipalities which operate the lines	$239.26	
Interest at 4% per annum on monthly balances at the credit of the account	108.37	
		347.63
		3,395.26
Deduct:		
Share of contingencies reserve on rural lines transferred to Niagara system		1,270.85
Balance carried forward October 31, 1934		$2,124.41

NIAGARA SYSTEM—RURAL LINES

Statement showing the total Sinking Fund in respect of each line, together with interest allowed thereon to October 31, 1934

Lines operated by	Period of years ending October 31, 1934	Amount
		$ c.
Milton	21 years	236.16
Welland	22 "	11,391.16
Total		$11,627.32

NIAGARA SYSTEM—RURAL LINES

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933	$14,046.12
Provided in the year ending October 31, 1934	430.67
Interest at 4% per annum on the amount standing at the credit of the account	465.45
	$14,942.24
Deduct:	
Share of sinking fund on rural lines transferred to Niagara system	3,314.92
Total	$11,627.32

GEORGIAN BAY

Operating Account for Year

Costs of operation as provided under the terms of the Power Commission Act

Power purchased		$ 43,832.70
Costs of operation and maintenance, including the proportion of administrative expenses chargeable to the operation of the system:		
Generation and transmission equipment	$351,019.54	
Rural power districts	58,267.17	
		409,286.71
Interest (including exchange thereon) on capital investment in:		
Generation and transmission equipment	$343,759.04	
Rural power districts	36,986.15	
		380,745.19
Provision for renewal of:		
Generation and transmission equipment	$99,287.01	
Rural power districts	30,557.10	
		129,844.11
Provision for obsolescence and contingencies in respect of:		
Generation and transmission equipment	$28,291.62	
Rural power districts	15,278.55	
		43,570.17
Provision for sinking fund:		
By charges included in the cost of power delivered to municipalities and rural power districts	$71,847.17	
By charges against contracts with private companies which purchased power and against local distribution systems	8,050.95	
By charges included in the cost of distribution of power within rural power districts	8,450.52	
		88,348.64
		$1,095,627.52

GEORGIAN BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Alliston	60.00	58.00	92,882.36	218.6	391.86	4,200.01	4,208.93
Arthur	75.00	75.00	68,353.30	128.3	229.99	3,417.90	3,081.47
Barrie	36.00	36.00	557,199.95	2,257.7	4,047.11	26,403.93	25,213.65
Beaverton	43.00	43.00	50,641.49	174.8	313.34	2,846.23	2,255.94
Beeton	75.00	72.00	54,050.52	96.1	172.27	2,373.30	2,435.58
Bradford	70.00	68.00	64,179.19	140.2	251.32	3,376.42	2,896.33
Brechin	55.00	55.00	16,761.51	43.0	77.08	954.79	742.24
Cannington	45.00	45.00	44,574.58	151.2	271.04	2,455.26	1,996.35
Chatsworth	45.00	47.00	14,660.09	48.2	86.40	800.67	661.15
Chesley	40.00	40.00	133,642.77	483.5	866.73	5,666.12	6,032.99

SYSTEM

Ending October 31, 1934

REVENUE FOR PERIOD

Amounts received from (or billed against) municipalities at interim monthly rates	$852,337.00	
Power sold to private companies and customers	87,061.81	
Amounts received from (or billed against) customers in rural power districts	242,562.04	
		$1,181,960.85
Add:		
Amounts due by certain municipalities, being the difference between the sums received (or billed) at interim monthly rates and the amounts charged—following annual adjustment—in respect of power supplied in the year	$1,912.72	
Amounts due by municipalities comprising certain rural power districts, being the difference between the sums received from (or billed against) customers therein and the amounts charged to such districts—following annual adjustment—in respect of power supplied in the year	19,000.52	
		20,913.24
		$1,202,874.09
Deduct:		
Amounts received from (or billed against) certain municipalities at interim monthly rates in excess of the amounts charged—following annual adjustment—in respect of power supplied in the year	$97,607.83	
Amounts received from (or billed against) customers in certain rural power districts in excess of the amounts charged to such districts—following annual adjustment— in respect of power supplied in the year	9,638.74	
		107,246.57
Revenue		$1,095,627.52
		$1,095,627.52

SYSTEM *G.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Municipality of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,409.98	308.62	978.01	82.27	11,580.28	12,754.81	1,174.53	....
1,104.10	224.05	719.62	48.64	8,825.77	9,619.34	793.57	....
6,520.27	2,102.82	5,866.83	855.92	71,010.53	81,275.70	10,265.17	....
654.74	188.82	533.16	66.27	6,858.50	7,517.06	658.56	....
884.18	173.00	569.12	36.43	6,643.88	6,972.37	328.49	....
996.33	215.24	675.70	53.15	8,464.49	9,582.78	1,118.29	....
247.16	61.32	176.49	16.30	2,275.38	2,366.78	91.40	....
581.84	164.68	469.34	57.32	5,995.83	6,804.72	808.89	....
194.48	58.91	154.36	18.27	1,974.24	2,244.48	270.24	....
1,679.91	517.37	1,405.71	183.30	16,352.13	19,341.39	2,989.26	....

GEORGIAN BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Coldwater	39.00	39.00	61,258.71	223.8	401.18	2,687.31	2,756.18
Collingwood	40.00	40.00	344,467.13	1,177.7	2,111.12	19,199.29	15,361.08
Cookstown	60.00	55.00	20,689.43	54.7	98.05	1,043.29	936.52
Creemore	55.00	55.00	37,421.32	94.2	168.86	2,033.88	1,682.15
Dundalk	42.00	42.00	42,984.72	157.7	282.69	2,348.16	1,940.40
Durham	45.00	45.00	102,388.93	356.8	639.59	5,793.60	4,602.30
Elmvale	43.00	43.00	41,563.97	150.9	270.50	2,400.65	1,858.59
Elmwood	50.00	46.00	16,150.40	53.9	96.62	927.95	731.04
Flesherton	50.00	48.00	24,338.67	77.0	138.03	1,488.08	1,098.57
Grand Valley	60.00	58.00	38,217.93	94.2	168.86	1,995.96	1,719.21
Gravenhurst	28.00	27.00	125,301.52	653.9		5,958.10	5,700.30
Hanover	35.00	35.00	242,787.59	967.4	1,734.17	10,520.76	10,898.51
Holstein	90.00	90.00	13,647.92	15.1	27.07	809.55	615.70
Huntsville	28.00	28.00	210,720.01	928.4		9,045.23	9,545.50
Kincardine	58.00	54.00	212,525.16	560.8	1,005.28	10,112.10	9,676.73
Kirkfield	60.00	60.00	10,423.76	21.9	39.26	543.04	469.33
Lucknow	63.00	62.00	83,340.67	185.7	332.88	3,842.25	3,782.53
Markdale	40.00	40.00	42,154.21	160.9	288.43	2,145.58	1,910.67
Meaford	46.00	46.00	130,484.35	383.3	687.10	5,247.65	5,932.63
Midland	35.00	35.00	627,379.98	2,614.6	4,686.89	27,937.42	28,543.55
Mildmay	60.00	60.00	27,565.05	71.3	127.82	1,301.12	1,269.02
Mount Forest	50.00	50.00	112,267.64	337.0	604.10	6,161.13	5,069.95
Neustadt	70.00	70.00	30,766.33	32.6	58.44	880.27	1,376.07
Orangeville	48.00	48.00	186,278.73	520.4	932.86	8,574.97	8,439.72
Owen Sound	36.00	36.00	802,279.45	3,233.8	5,796.85	34,996.07	36,326.00
Paisley	60.00	60.00	51,772.05	111.5	199.87	2,008.03	2,351.06
Penetanguishene	40.00	40.00	170,887.90	603.8	1,082.36	7,628.86	7,730.56
Port Elgin	40.00	40.00	64,369.56	227.1	407.10	2,997.77	2,954.20
Port McNicoll	42.00	40.00	22,352.45	79.2	141.97	1,009.47	1,013.67
Port Perry	52.00	52.00	73,233.33	192.6	345.25	3,233.05	3,325.59
Priceville	85.00	70.00	8,366.66	17.1	30.65	435.50	380.26
Ripley	80.00	80.00	31,723.47	55.0	98.59	1,396.02	1,437.38
Rosseau	127.00	110.00	29,907.95	37.4	......	1,252.33	1,372.68
Shelburne	46.00	48.00	69,513.73	217.7	390.24	3,426.60	3,139.73
Southampton	40.00	40.00	60,555.69	230.0	412.29	2,882.78	2,778.06
Stayner	44.00	44.00	55,580.43	190.4	341.31	3,039.50	2,506.23
Sunderland	63.00	61.00	24,376.18	57.3	102.71	1,099.03	1,084.16
Tara	53.00	50.00	26,631.06	78.1	140.00	1,264.58	1,197.62
Teeswater	60.00	59.00	41,990.23	97.9	175.49	1,988.95	1,894.25
Thornton	80.00	75.00	12,874.84	27.5	49.30	626.03	582.07

SYSTEM *G.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Municipality of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
757.64	237.35	640.16	84.84	7,564.66	8,728.83	1,164.17	
4,477.42	1,274.20	3,626.98	446.48	46,496.57	47,108.97	612.40	
301.78	76.54	217.85	20.74	2,694.77	3,060.94	366.17	
555.50	132.46	394.02	35.72	5,002.59	5,178.21	175.62	
536.72	164.22	452.59	59.79	5,784.57	6,624.75	840.18	
1,315.76	388.94	1,077.40	135.27	13,952.86	16,057.36	2,104.50	
522.24	161.43	437.64	57.22	5,708.27	6,489.66	781.39	
212.52	66.00	170.00	20.43	2,224.56	2,519.27	294.71	
295.96	88.85	256.25	29.19	3,394.93	3,720.49	325.56	
571.27	133.28	402.33	35.71	5,026.62	5,494.02	467.40	
1,167.60	494.96	1,319.68	247.90	14,888.54	17,768.19	2,879.65	
2,874.78	963.46	2,556.48	366.75	29,914.91	33,886.09	3,971.18	
242.03	39.28	143.71	5.72	1,883.06	1,358.25		524.81
2,325.79	777.67	2,225.45	351.97	24,271.61	26,674.59	2,402.98	
3,101.96	728.84	2,237.75	212.61	27,075.27	30,643.08	3,567.81	
163.63	34.55	109.76	8.30	1,367.87	1,316.50		51.37
1,286.48	283.31	877.53	70.40	10,475.38	11,543.35	1,067.97	
480.20	156.75	443.84	61.00	5,486.47	6,436.31	949.84	
1,824.71	461.87	1,373.92	145.31	15,673.19	17,633.14	1,959.95	
7,377.43	2,335.83	6,702.88	991.22	78,575.22	91,512.12	12,936.90	
388.24	100.81	290.27	27.03	3,504.31	4,275.00	770.69	
1,555.18	393.29	1,182.10	127.76	15,093.51	16,847.89	1,754.38	
545.55	88.55	322.38	12.36	3,283.62	2,223.63		1,059.99
2,655.68	650.33	1,959.22	197.29	23,410.07	24,980.00	1,569.93	
9,421.83	2,985.39	8,446.79	1,225.97	99,198.90	116,418.27	17,219.37	
806.45	176.70	544.80	42.27	6,129.18	6,687.50	558.32	
2,217.72	631.11	1,818.56	228.91	21,338.08	24,153.24	2,815.16	
822.30	242.37	677.77	86.10	8,187.61	9,085.14	897.53	
286.87	88.68	236.42	30.03	2,807.11	3,198.60	391.49	
1,070.22	245.14	771.11	73.02	9,063.38	10,013.00	949.62	
132.31	36.88	88.10	6.48	1,110.18	1,237.27	127.09	
521.82	101.51	334.03	20.85	3,910.20	4,410.96	491.76	
521.26	92.42	314.77	14.18	3,567.64	4,195.18	627.54	
944.43	259.50	731.93	82.53	8,974.96	10,374.74	1,399.78	
740.07	235.44	637.60	87.20	7,773.44	9,201.42	1,427.98	
721.67	212.42	585.22	72.18	7,478.53	8,379.07	900.54	
370.17	82.45	256.67	21.72	3,016.91	3,513.11	496.20	
372.62	101.36	280.38	29.61	3,386.17	3,951.50	565.33	
639.30	163.41	442.13	37.11	5,340.64	5,795.35	454.71	
201.18	46.59	135.57	10.43	1,651.17	2,083.57	432.40	

GEORGIAN BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Tottenham	95.00	88.00	41,694.87	58.8	105.40	2,222.67	1,886.12
Uxbridge	55.00	55.00	84,709.93	211.7	379.49	3,485.75	3,851.28
Victoria Harbour	46.00	44.00	22,475.90	74.1	132.83	1,141.54	1,015.08
Walkerton	38.00	38.00	118,333.01	462.6	829.27	5,875.49	5,429.05
Waubaushene	44.00	44.00	12,830.33	48.7	87.30	892.56	578.15
Wiarton	65.00	69.00	110,605.68	216.3	387.74	4,536.97	5,062.13
Windermere	85.00	75.00	16,649.40	34.6	. .	871.48	762.53
Wingham	60.00	61.00	140,420.40	310.1	555.89	5,556.30	6,353.46
Woodville	58.00	58.00	21,355.51	50.6	90.70	1,156.71	944.65
RURAL POWER DISTRICTS							
Alliston R.P.D.—Essa, Tecumseth and Tossorontio twps.			24,433.37	68.9	123.51	1,003.61	1,113.46
Arthur R.P.D.—Luther E. and Luther W. twps.			1,298.27	3.2	5.74	56.82	58.99
Bala R.P.D.—Medora and Wood twp.			33,298.43	131.3	235.36	1,513.70	1,520.89
Barrie R.P.D.—Innisfil, Oro and Vespra twps.			79,909.24	259.5	465.17	3,209.31	3,641.58
Baysville R.P.D.—Franklin, Macaulay, McLean, Ridout and Sherbourne twps.			17,334.98	49.9	. . . . .	737.70	795.38
Beaumaris R.P.D.—Macaulay, Medora and Wood, Monck and Muskoka twps.			38,797.50	170.3	. . . . .	1,703.86	1,766.23
Beaverton R.P.D.—Brock, Georgina, Mara and Thorah twps.			39,750.17	129.1	231.43	2,373.51	1,815.09
Beeton R.P.D.—Tecumseth twp.			2,812.19	5.0	8.96	110.85	129.09
Bradford R.P.D.—Gwillimbury W., King and Tecumseth twps.			19,134.05	40.1	71.88	867.54	875.66
Bruce R.P.D.—Brant, Carrick, Culross, Greenock and Saugeen twps.			36,470.52	99.9	179.06	1,366.00	1,670.99
Buckskin R.P.D.—Matchedash and Medora and Wood twps.			5,689.25	14.4	25.81	263.83	258.99
Cannington R.P.D.—Brock, Eldon and Mariposa twps.			13,349.24	41.1	73.67	625.41	597.83
Chatsworth R.P.D.—Holland twp.			3,631.52	8.0	14.34	163.46	165.70
Cookstown R.P.D.—Essa and Innisfil twps.			302.58	0.8	1.43	11.93	13.80
Creemore R.P.D.—Nottawasaga, Osprey, Sunnidale and Tossorontio twps.			18,048.57	55.0	98.59	844.03	825.24

SYSTEM *G.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Municipality of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
713.49	129.10	439.04	22.29	5,518.11	5,241.56	....	276.55
1,260.64	285.27	891.95	80.26	10,234.64	11,642.56	1,407.92	....
298.80	85.40	237.20	28.09	2,938.94	3,288.33	349.39	....
1,308.76	454.33	1,246.08	175.37	15,318.35	17,576.95	2,258.60	....
156.88	51.90	135.10	18.46	1,920.35	2,140.93	220.58	....
1,762.19	360.06	1,160.98	82.00	13,352.07	14,777.78	1,425.71	....
262.05	58.51	175.27	13.12	2,142.96	2,618.99	476.03	....
2,172.49	483.30	1,478.12	117.56	16,717.12	18,867.60	2,150.48	....
323.48	71.21	224.86	19.18	2,830.79	2,933.31	102.52	....
347.55	85.81	257.26	26.12	2,957.32	2,957.32	see page	219
19.41	4.52	13.66	1.21	160.35	160.35	“	“
367.75	127.84	350.40	49.79	4,165.73	4,165.73	“	“
1,066.73	317.96	841.39	98.38	9,640.52	9,640.52	“	“
245.01	76.87	182.79	18.92	2,056.67	2,056.67	“	“
427.36	161.31	408.60	64.56	4,531.92	4,531.92	“	“
530.53	148.04	418.50	48.95	5,566.05	5,566.05	“	“
46.00	9.01	29.61	1.90	335.42	335.42	“	“
300.50	65.45	201.45	15.20	2,397.68	2,397.68	“	“
517.00	133.75	383.90	37.87	4,288.57	4,288.57	“	“
84.29	24.46	59.90	5.46	722.74	722.74	“	“
182.82	48.01	140.56	15.58	1,683.88	1,683.88	“	“
56.29	15.88	38.24	3.03	456.94	456.94	“	“
4.41	1.12	3.18	0.30	36.17	36.17	“	“
248.33	66.34	190.04	20.85	2,293.42	2,293.42	“	“

GEORGIAN BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; upon ascertainment (by annual adjustment) of the actual cost

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Elmvale R.P.D.—Flos, Medonte, Oro and Vespra twps.	19,166.07	61.5	110.24	721.66	871.53
Flesherton R.P.D.—Artemesia twp.	2,195.68	7.0	12.55	106.89	98.12
Gravenhurst R.P.D.—Muskoka twp.	5,639.54	27.2	....	318.94	256.59
Hawkestone R.P.D.—Orillia and and Oro twps.	613.46	80.4	1,767.78	167.42	22.97
Holstein R.P.D.—Bentinck, Egremont and Normanby twps.	....	....	....	....	....
Huntsville R.P.D.—Brunel, Chaffey and Franklin twps.	13,870.85	51.5	....	719.96	636.23
Innisfil R.P.D.—Gwillimbury W. and Innisfil twps.	76,330.18	210.5	377.34	3,189.42	3,487.36
Lucknow R.P.D.—Kinloss twp.	....	....	....	....	....
Mariposa R.P.D.—Brock, Mariposa and Reach twps.	42,778.43	133.3	238.95	1,785.05	1,928.67
Markdale R.P.D.—Artemesia, Euphrasia, Glenelg and Holland twps.	11,500.90	35.0	62.74	477.67	525.45
Meaford R.P.D.—St. Vincent twp.	....	....	....	....	....
Medonte R.P.D.—Baxter and Tay twps.	5,427.19	20.6	36.93	296.01	247.58
Midland R.P.D.—Tay and Tiny twps.	5,567.01	23.5	42.13	307.69	256.86
Neustadt R.P.D.—Bentinck twp.	....	....	....	....	....
Nottawasaga R.P.D.—Nottawasaga twp.	8,442.72	27.2	48.76	479.73	373.98
Orangeville R.P.D.—Amaranth, Caledon, Erin and Garafraxa E. twps.	12,670.49	33.3	59.69	531.72	573.82
Owen Sound R.P.D.—Derby, Sarawak and Sydenham twps.	8,711.98	33.9	60.77	349.84	393.30
Port Perry R.P.D.—Cartwright, Manvers, Reach and Scugog twps.	42,203.97	108.9	195.21	2,121.09	1,922.25
Ripley R.P.D.—Huron and Kinloss twps.	4,503.18	10.3	18.46	196.68	205.55
Sauble R.P.D.—Amabel and Keppel twps.	6,631.89	12.9	23.12	249.61	303.59
Shelburne R.P.D.—Amaranth, Melancthon and Mulmur twps.	10,021.91	28.8	51.63	411.01	456.71
Sparrow Lake R.P.D.—Matchedash, Morrison, Orillia and Rama twps.	28,542.32	114.2	204.71	1,104.65	1,290.59

SYSTEM *G.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Municipality of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
257.37	78.65	201.81	23.32	2,264.58	2,264.58	see page	219
26.56	8.80	23.12	2.65	278.69	278.69	"	"
57.11	22.75	59.40	10.31	725.10	725.10	"	"
12.27	3.07	6.46	30.48	2,010.45	2,010.45	"	"
....	....	....	....	....	....	....	....
172.62	54.05	146.42	19.52	1,748.80	1,748.80	"	"
1,095.52	273.08	803.71	79.80	9,306.23	9,306.23	"	"
....	....	....	....	....	....	....	....
582.57	154.51	450.43	50.54	5,190.72	5,190.72	"	"
155.55	48.17	121.09	13.27	1,403.94	1,403.94	"	"
....	....	....	....	....	....	see page	221
66.35	21.95	57.14	7.81	733.77	733.77	"	"
64.64	20.63	59.37	8.91	760.23	760.23	"	"
....	....	....	....	....	....	....	....
113.15	31.86	88.90	10.32	1,146.70	1,146.70	"	"
184.94	45.36	133.27	12.62	1,541.42	1,541.42	"	"
101.78	32.05	90.14	12.85	1,040.73	1,040.73	"	"
621.06	142.58	444.38	41.29	5,487.86	5,487.86	"	"
68.96	15.41	47.41	3.90	556.37	556.37	"	"
105.93	23.70	69.68	4.89	780.52	780.52	"	"
141.46	38.46	105.53	10.92	1,215.72	1,215.72	"	"
336.97	113.98	300.53	43.29	3,394.72	3,394.72	"	"

GEORGIAN BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; upon ascertainment (by annual adjustment) of the actual cost

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Tara R.P.D.—Amabel, Arran, Derby and Keppel twps	17,062.65	49.0	87.83	827.45	771.45
Thornton R.P.D.—Essa twp.	6,577.39	13.2	23.66	263.83	300.51
Utterson R.P.D.—Cardwell, Humphrey, Medora and Wood, Stephenson and Watt twps.	18,942.64	49.3	.....	715.50	864.67
Uxbridge R.P.D.—Brock, Georgina, Reach, Scott and Uxbridge twps.	36,194.01	89.3	160.08	1,454.90	1,644.42
Wasaga Beach R.P.D.—Flos, Nottawasaga and Sunnidale twps.	51,289.27	175.7	314.96	2,428.47	2,317.50
Wroxeter R.P.D.—Howick, Morris and Turnberry twps.	46,664.09	96.1	172.27	1,782.45	2,125.47
Totals—Municipalities	5,997,559.90	20,559.7	33,889.54	280,516.01	271,396.85
Totals—Rural power districts	815,807.70	2,569.1	5,604.76	35,859.20	37,124.09
Totals—Companies and distributing systems	765,214.57	2,420.2	4,338.40	34,644.33	35,238.10
	7,578,582.17				
Non-operating capital	1,757.12	.....	.....	.....	.....
Grand totals	7,580,339.29	25,549.0	43,832.70	351,019.54	343,759.04

SYSTEM *G.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Municipality of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
239.81	68.75	179.08	18.57	2,192.94	2,192.94	see page	221
104.52	24.35	69.26	5.00	791.13	791.13	"	"
277.84	67.80	199.43	18.69	2,143.93	2,143.93	"	"
540.99	122.64	381.10	33.85	4,337.98	4,337.98	"	"
665.95	196.01	540.04	66.62	6,529.55	6,529.55	"	"
735.82	165.42	491.01	36.43	5,508.87	5,508.87	"	"
77,858.06	21,928.05	63,258.98	7,794.40	756,641.89	852,337.00	97,607.83	1,912.72
11,173.72	3,060.40	8,588.19	973.97	102,384.33	102,384.33	....	....
10,255.23	3,303.17	8,050.95	(8,768.37)	87,061.81	87,061.81	....	....
....	....	....	....	....	....	....	....
99,287.01	28,291.62	79,898.12	....	946,088.03	1,041,783.14	97,607.83	1,912.72

GEORGIAN BAY SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged to annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Alliston R.P.D.—Essa, Tecumseth and Tossorontio twps.	38,676.46	19,086.94	19,589.52	2,957.32
Arthur R.P.D.—Luther E. and Luther W. twps.	*4,303.91	2,105.26	2,198.65	160.35
Bala R.P.D.—Medora and Wood twp.	*76.681.45	37,157.88	39,523.57	4,165.73
Barrie R.P.D.—Innisfil, Oro and Vespra twps.	125,209.05	62,604.53	62,604.52	9,640.52
Baysville R.P.D.—Franklin, Macaulay, McLean, Ridout and Sherbourne twps.	71,748.48	35,874.24	35,874.24	2,056.67
Beaumaris R.P.D.—Macaulay, Medora and Wood, Monck and Muskoka twps.	77,737.23	38,868.61	38,868.62	4,531.92
Beaverton R.P.D.—Brock, Georgina, Mara and Thorah twps.	*60,171.79	29,744.37	30,427.42	5,566.05
Beeton R.P.D.—Tecumseth twp.	3,018.23	1,509.11	1,509.12	335.42
Bradford R.P.D.—Gwillimbury W., King and Tecumseth twps.	37,461.98	18,565.93	18,896.05	2,397.68
Bruce R.P.D.—Brant, Carrick, Culross, Greenock and Saugeen twps.	*62,142.55	29,630.08	32,512.47	4,288.57
Buckskin R.P.D.—Matchedash and Medora and Wood twps.	4,036.42	2,018.21	2,018.21	722.74
Cannington R.P.D.—Brock, Eldon and Mariposa twps.	*18,968.85	7,867.35	11,101.50	1,683.88
Chatsworth R.P.D.—Holland twp.	1,497.32	748.66	748.66	456.94
Cookstown R.P.D.—Essa and Innisfil twps.	704.54	352.27	352.27	36.17
Creemore R.P.D.—Nottawasaga, Osprey, Sunnidale and Tossorontio twps.	*46,243.28	22,446.27	23,797.01	2,293.42
Elmvale R.P.D.—Flos, Medonte, Oro and Vespra twps.	39,313.27	19,523.46	19,789.81	2,264.58
Flesherton R.P.D.—Artemesia twp.	* 5,343.55	2,485.01	2,858.54	278.69
Gravenhurst R.P.D.—Muskoka twp.	6,609.40	3,304.70	3,304.70	725.10
Hawkestone R.P.D.—Orillia and Oro twps.	48,799.11	24,399.56	24,399.55	2,010.45
Holstein R.P.D.—Bentinck, Egremont and Normanby twps.	1,900.53	950.26	950.27	....
Huntsville R.P.D.—Brunel, Chaffey and Franklin twps.	51,177.29	25,588.64	25,588.65	1,748.80
Innisfil R.P.D.—Gwillimbury W. and Innisfil twps.	84,448.91	42,224.46	42,224.45	9,306.23
Lucknow R.P.D.—Kinloss twp.	637.09	318.55	318.54	....
Mariposa R.P.D.—Brock, Mariposa and Reach twps.	76,632.19	38,316.10	38,316.09	5,190.72
Markdale R.P.D.—Artemesia, Euphrasia, Glenelg and Holland twps.	*30,024.84	14,886.35	15,138.49	1,403.94

NOTE—Items marked * include portions of transmission lines aggregating $10,467.46 used for purposes of rural power districts.

RURAL POWER DISTRICTS *G.B.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, the Municipalities comprising certain other Districts upon ascertainment (by in the year ending October 31, 1934.

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,527.45	900.02	771.07	385.54	205.63	6,747.03	7,384.92	637.89	
99.93	101.33	86.08	43.04	23.15	513.88	580.69	66.81	
3,552.67	1,627.76	1,365.74	682.87	371.90	11,766.67	10,180.93		1,585.74
4,698.60	2,824.09	2,451.01	1,225.50	645.23	21,484.95	20,350.15		1,134.80
1,390.43	1,595.09	1,384.37	692.18	364.43	7,483.17	5,317.59		2,165.58
3,467.53	1,642.72	1,425.70	712.85	375.32	12,156.04	11,970.26		185.78
2,754.76	1,347.32	1,156.72	578.36	307.84	11,711.05	10,520.24		1,190.81
69.63	69.55	60.36	30.18	15.89	581.03	313.29		267.74
1,301.98	869.32	747.87	373.93	198.62	5,889.40	4,639.21		1,250.19
3,117.01	1,426.40	1,180.34	590.17	325.90	10,928.39	11,244.08	315.69	
173.02	92.04	79.88	39.94	21.03	1,128.65	957.84		170.81
1,094.75	503.50	372.30	186.15	115.03	3,955.61	4,006.33	50.72	
326.57	34.51	29.95	14.98	7.88	870.83	808.90		61.93
11.57	16.23	14.09	7.04	3.71	88.81	128.14	39.33	
1,213.38	1,090.98	920.05	460.02	249.26	6,227.11	5,078.72		1,148.39
1,246.92	907.68	782.44	391.22	207.38	5,800.22	6,561.75	761.53	
539.75	130.75	106.01	53.00	29.87	1,138.07	754.77		383.30
221.73	124.09	107.70	53.85	28.35	1,260.82	1,058.12		202.70
1,341.13	1,054.16	914.92	457.46	240.85	6,018.97	5,465.39		553.58
7.31	43.65	38.01	19.00	10.01	117.98	48.97		69.01
1,071.97	1,120.81	972.74	486.37	256.07	5,656.76	4,526.75		1,130.01
3,780.66	1,847.51	1,603.44	801.72	422.11	17,761.67	17,636.18		125.49
2.73	14.49	12.74	6.37	3.35	39.68	14.30		25.38
2,376.94	1,755.86	1,523.90	761.95	401.17	12,010.54	14,654.56	2,644.02	
1,209.64	668.82	575.42	287.71	152.80	4,298.33	3,742.80		555.53

GEORGIAN BAY SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged to annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Meford R.P.D.—St. Vincent twp.	1,992.72	996.36	996.36	....
Medonte R.P.D.—Baxter and Tay twps.	18,259.80	9,129.90	9,129.90	733.77
Midland R.P.D.—Tay and Tiny twps.	17,451.61	8,725.80	8,725.81	760.23
Neustadt R.P.D.—Bentinck twp.	1,045.12	522.56	522.56	....
Nottawasaga R.P.D.—Nottawasaga twp.	17,301.88	8,650.94	8,650.94	1,146.70
Orangeville R.P.D.—Amaranth, Caledon, Erin and Garafraxa E. twps.	33,390.82	16,695.41	16,695.41	1,541.42
Owen Sound R.P.D.—Derby, Sarawak and Sydenham twps.	13,320.04	6,660.02	6,660.02	1,040.73
Port Perry R.P.D.—Cartwright, Manvers, Reach and Scugog twps.	75,851.14	37,925.57	37,925.57	5,487.86
Ripley R.P.D.—Huron and Kinloss twps.	*8,447.54	3,990.30	4,457.24	556.37
Sauble R.P.D.—Amabel and Keppel twps.	7,838.81	3,919.41	3,919.40	780.52
Shelburne R.P.D.—Amaranth, Melancthon and Mulmur twps.	26,114.43	12,439.14	13,675.29	1,215.72
Sparrow Lake R.P.D.—Matchedash, Morrison, Orillia and Rama twps.	85,203.53	42,601.77	42,601.76	3,394.72
Tara R.P.D.—Amabel, Arran, Derby and Keppel twps.	30,552.85	15,276.43	15,276.42	2,192.94
Thornton R.P.D.—Essa twp.	9,482.55	4,741.28	4,741.27	791.13
Utterson R.P.D.—Cardwell, Humphrey, Medora and Wood, Stephenson and Watt twps.	*46,743.44	22,486.33	24,257.11	2,143.93
Uxbridge R.P.D.—Brock, Georgina, Reach Scott and Uxbridge twps.	84,865.89	42,432.94	42,432.95	4,337.98
Wasaga Beach R.P.D.—Flos, Nottawasaga and Sunnidale twps.	69,565.66	....	69,565.66	6,529.55
Wroxeter R.P.D.—Howick, Morris and Turnberry twps.	74,923.78	36,081.47	38,842.31	5,508.87
Total capital	1,595,839.33	753,852.43	841,986.90	
Non-operating capital	4,290.29	2,145.14	2,145.15	
Grand totals	1,600,129.62	755,997.57	844,132.05	102,384.33

NOTE—Items marked * include portions of transmission lines aggregating $10,467.46 used for purposes of rural power districts.

RURAL POWER DISTRICTS *G.B.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, the Municipalities comprising certain other Districts upon ascertainment (by in the year ending October 31, 1934.

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
20.22	45.49	39.71	19.86	10.45	135.73	73.95	......	61.78
515.70	406.28	352.61	176.30	92.82	2,277.48	1,724.71	......	552.77
310.31	382.88	332.30	166.15	87.48	2,039.35	1,976.30	......	63.05
4.22	23.90	20.90	10.45	5.50	64.97	18.64	......	46.33
506.49	389.05	337.65	168.83	88.89	2,637.61	3,205.09	567.48	......
743.92	763.21	662.38	331.19	174.37	4,216.49	3,658.50	......	557.99
650.62	299.89	260.27	130.14	68.52	2,450.17	2,367.87	......	82.30
2,529.47	1,704.61	1,479.42	739.71	389.46	12,330.53	12,496.85	166.32	......
154.46	205.40	168.93	84.47	46.93	1,216.56	794.21	......	422.35
932.23	107.76	93.52	46.76	24.62	1,985.41	1,568.49	......	416.92
1,212.14	628.34	520.61	260.30	143.56	3,980.67	2,242.93	......	1,737.74
1,847.80	1,850.59	1,606.12	803.06	422.81	9,925.10	9,784.63	......	140.47
2,158.78	699.75	607.31	303.65	159.87	6,122.30	5,494.47	......	627.83
148.13	218.45	189.59	94.80	49.92	1,492.02	1,345.67	......	146.35
1,751.83	1,016.92	847.20	423.61	232.34	6,415.83	6,976.00	560.17	......
2,529.88	1,947.60	1,690.31	845.15	444.97	11,795.89	9,858.02	......	1,937.87
2,790.13	2,705.19	1,173.91	586.96	618.06	14,403.80	17,645.51	3,241.71	......
2,862.78	1,782.16	1,491.51	745.76	407.17	12,798.25	13,385.32	587.07	......
58,267.17	36,986.15	30,557.10	15,278.55	8,450.52	251,923.82	242,562.04	9,638.74	19,000.52

GEORGIAN BAY

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Alliston	June, 1918	1,559.57			1,559.57
Arthur	Dec., 1916		1,016.59	300.00	
Barrie	April, 1913		3,353.18	409.81	
Beaverton	Nov., 1914	214.42			214.42
Beeton	Aug., 1918	935.76			935.76
Bradford	Oct., 1918	1,346.08			1,346.08
Brechin	Jan., 1915	326.57			326.57
Cannington	Nov., 1914	473.55			473.55
Chatsworth	Dec., 1915		81.49	1.31	
Chesley	July, 1916	1,902.84			1,902.84
Coldwater	Mar., 1913		363.22	363.22	
Collingwood	Mar., 1913	520.92			520.92
Cookstown	May, 1918	469.49			469.49
Creemore	Nov., 1914		21.37	21.37	
Dundalk	Dec., 1915	474.36		93.64	568.00
Durham	Dec., 1915	1,320.66		33.92	1,354.58
Elmvale	June, 1913	541.09			541.09
Elmwood	April, 1918	545.45			545.45
Flesherton	Dec., 1915	285.81			285.81
Grand Valley	Dec., 1916	538.22			538.22
Gravenhurst	Nov., 1915		1,058.97	1,058.97	
Hanover	Sept., 1916	2,212.53			2,212.53
Holstein	May, 1916		2,914.83	410.88	
Huntsville	Sept., 1916		2,781.60		
Kincardine	Mar., 1921	3,667.17			3,667.17
Kirkfield	June, 1920		248.02	209.61	
Lucknow	Jan., 1921	1,053.23			1,053.23
Markdale	Mar., 1916	532.20			532.20
Meaford	Jan., 1924	1,099.69			1,099.69
Midland	July, 1911	6,948.24			6,948.24
Mildmay	Dec., 1932	915.32			915.32
Mount Forest	Dec., 1915	1,358.48			1,358.48
Neustadt	Dec., 1918		5,925.01		
Orangeville	July, 1916	830.65			830.65
Owen Sound	Dec., 1915	10,572.81			10,572.81
Paisley	Sept., 1923	247.79			247.79
Penetanguishene	July, 1911	2,008.71			2,008.71
Port Elgin	Mar., 1931	321.85			321.85
Port McNicoll	Jan., 1915		232.86	20.66	
Port Perry	Sept., 1922	215.86			215.86
Priceville	Mar., 1920	349.67			349.67
Ripley	Jan., 1921	376.00			376.00
Rosseau	July, 1931	751.50			751.50
Shelburne	July, 1916		105.98	105.98	
Southampton	Feb., 1931	466.08			466.08

SYSTEM *G.B.—CREDIT OR CHARGE*

supplied to it to October 31, 1933; the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
27.50		1,174.53		1,202.03	
	36.82	793.57		40.16	
	124.60	10,265.17		7,197.20	
3.50		658.56		662.06	
16.66		328.49		345.15	
23.17		1,118.29		1,141.46	
6.99		91.40		98.39	
7.94		808.89		816.83	
	3.23	270.24		186.83	
32.33		2,989.26		3,021.59	
	6.09	1,164.17		1,158.08	
8.73		612.40		621.13	
10.07		366.17		376.24	
	0.41	175.62		175.21	
8.97		840.18		849.15	
26.96		2,104.50		2,131.46	
8.42		781.39		789.81	
11.12		294.71		305.83	
4.76		325.56		330.32	
9.47		467.40		476.87	
	20.19	2,879.65		2,859.46	
35.40		3,971.18		4,006.58	
	104.34		524.81		3,133.10
	111.26	2,402.98			489.88
48.63		3,567.81		3,616.44	
	3.35		51.37		93.13
17.95		1,067.97		1,085.92	
8.98		949.84		958.82	
18.44		1,959.95		1,978.39	
102.80		12,936.90		13,039.70	
17.75		770.69		788.44	
23.27		1,754.38		1,777.65	
	237.00		1,059.99		7,222.00
16.57		1,569.93		1,586.50	
151.63		17,219.37		17,371.00	
4.24		558.32		562.56	
26.64		2,815.16		2,841.80	
5.50		897.53		903.03	
	9.02	391.49		170.27	
3.78		949.62		953.40	
6.97		127.09		134.06	
7.55		491.76		499.31	
14.10		627.54		641.64	
	2.16	1,399.78		1,397.62	
7.35		1,427.98		1,435.33	

GEORGIAN BAY

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Stayner	Oct., 1913	470.91			470.91
Sunderland	Nov., 1914	200.17		3.51	203.68
Tara	Feb., 1918	611.90			611.90
Teeswater	Dec., 1920	187.43			187.43
Thornton	Nov., 1918	271.29			271.29
Tottenham	Oct., 1918	783.06			783.06
Uxbridge	Sept., 1922	532.58			532.58
Victoria Harbour	July, 1914	356.00			356.00
Walkerton	Feb., 1931	1,524.03			1,524.03
Waubaushene	Dec., 1914	95.17			95.17
Wiarton	May, 1931		331.12	331.12	
Windermere	June, 1930	760.79			760.79
Wingham	Dec., 1920	301.53			301.53
Woodville	Nov., 1914	167.77			167.77
Total—Municipalities		51,645.20	18,434.24	3,364.00	51,776.27
RURAL POWER DISTRICTS*					
Alliston R.P.D.	Nov., 1929	1,861.06			5.52
Arthur R.P.D.	Dec., 1929		25.29	26.30	
Bala R.P.D.	Jan., 1930		6,059.01	6,301.37	
Barrie R.P.D.	Aug., 1923		6,067.85	5,551.07	85.81
Baysville R.P.D.	July, 1932		5,875.71	3,965.02	
Beaumaris R.P.D.	June, 1928		1,435.29	1,492.70	53.41
Beaverton R.P.D.	Oct., 1926		6,690.87	529.96	108.90
Beeton R.P.D.	Sept., 1926		411.82	219.57	
Bradford R.P.D.	Aug., 1929		4,114.09	2,330.22	
Bruce R.P.D.	Oct., 1931		770.28		2.25
Buckskin R.P.D.	July, 1928		1,117.26		
Cannington R.P.D.	May, 1924	2,185.37			22.50
Chatsworth R.P.D.	Dec., 1928	193.71			
Cookstown R.P.D.	Dec., 1930	93.70			
Creemore R.P.D.	Dec., 1930		4,859.23	2,735.51	
Elmvale R.P.D.	Jan., 1924		677.05	49.91	157.78
Flesherton R.P.D.	Feb., 1922		1,022.64	141.90	
Gravenhurst R.P.D.	June, 1929	64.43			
Hawkestone R.P.D.	Aug., 1930		3,798.41	2,463.99	
Holstein R.P.D.	Mar., 1929		154.16	160.33	1.25
Huntsville R.P.D.	Aug., 1931		4,344.63	3,133.63	10.93
Innisfil R.P.D.	Feb., 1928		3,775.01		78.85
Lucknow R.P.D.	Feb., 1924		103.03	107.15	
Mariposa R.P.D.	Sept., 1923	6,185.69			
Markdale R.P.D.	July, 1924		2,214.10	1,258.30	

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*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

SYSTEM *G.B.—CREDIT OR CHARGE*

supplied to it to October 31, 1933; the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8.00		900.54		908.54	
2.81		496.20		499.01	
15.22		565.33		580.55	
3.74		454.71		458.45	
8.15		432.40		440.55	
11.82			276.55		264.73
8.99		1,407.92		1,416.91	
5.59		349.39		354.98	
26.24		2,258.60		2,284.84	
2.67		220.58		223.25	
	5.91	1,425.71		1,419.80	
17.76		476.03		493.79	
5.06		2,150.48		2,155.54	
2.61		102.52		105.13	
842.80	664.38	97,607.83	1,912.72	91,875.06	11,202.84
74.24		637.89		2,567.67	
	1.01	66.81		66.81	
	242.36		1,585.74		1,585.74
	243.58		1,134.80		1,980.97
	235.03		2,165.58		4,311.30
	58.49		185.78		240.27
	269.37		1,190.81		7,729.99
	16.47		267.74		476.46
	164.56		1,250.19		3,198.62
	30.87	315.69			487.71
	44.69		170.81		1,332.76
86.58		50.72		2,300.17	
7.75			61.93	139.53	
3.75		39.33		136.78	
	194.37		1,148.39		3,466.48
	30.59	761.53			53.98
	40.91		383.30		1,304.95
2.58			202.70		135.69
	151.94		553.58		2,039.94
	6.22		69.01		70.31
	174.06		1,130.01		2,526.00
	153.30		125.49		4,132.65
	4.12		25.38		25.38
247.43		2,644.02		9,077.14	
	88.56		555.53		1,599.89

GEORGIAN BAY

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Rural power district*	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Meaford R.P.D.	Oct., 1928		200.14	208.15	
Medonte R.P.D.	July, 1930		1,913.57	1,189.28	14.14
Midland R.P.D.	Nov., 1930		1,446.38	1,165.11	14.04
Neustadt R.P.D.	Nov., 1926		148.08	154.00	
Nottawasaga R.P.D.	Jan., 1922	1,302.74			
Orangeville R.P.D.	Aug., 1927		4,682.05	2,400.28	
Owen Sound R.P.D.	Mar., 1931		661.50	348.36	
Port Perry R.P.D.	Dec., 1922		5,330.02		
Ripley R.P.D.	Feb., 1922		1,763.32	772.16	
Sauble R.P.D.	Oct., 1931		787.50		
Shelburne R.P.D.	Feb., 1926		3,856.21	2,491.47	1.89
Sparrow Lake R.P.D.	Oct., 1925		171.55	178.41	62.98
Tara R.P.D.	Jan., 1925		799.89	831.89	
Thornton R.P.D.	Aug., 1930		1,353.57	97.54	
Utterson R.P.D.	June, 1930		1,392.69	1,448.40	0.68
Uxbridge R.P.D.	Sept., 1925		10,295.93	5,821.23	5.23
Wasaga Beach R.P.D.	July, 1923	11,228.14			23.21
Wroxeter R.P.D.	Feb., 1929		4,944.90	3,070.06	
Total—Rural power districts		23,114.84	93,263.03	50,643.27	649.37
Total—Municipalities		51,645.20	18,434.24	3,364.00	51,776.27
Totals		74,760.04	111,697.27	54,007.27	52,425.64

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

GEORGIAN BAY SYSTEM

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$1,614,779.69	
Deduct:		
Expenditures to October 31, 1933	160,559.10	
Balance brought forward October 31, 1933		$1,454,220.59
Added during the year ending October 31, 1934:		
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them	$89,031.78	
Amount included in costs of distribution of power within rural power districts	30,557.10	
Provision against equipment employed in respect of contracts with private companies which purchased power, and against equipment in local distribution systems	10,255.23	
Minor credits to reserve upon transfer of lines and equipment	158.86	
Interest at 4% per annum on monthly balances at the credit of the account	58,168.82	
		188,171.79
		$1,642,392.38
Deduct:		
Expenditures during the year ending October 31, 1934		49,560.35
Balance carried forward October 31, 1934		$1,592,832.03

SYSTEM *G.B.—CREDIT OR CHARGE*

supplied to it to October 31, 1933; the cash receipts and payments thereon, adjustments
or Charged to each Municipality in respect of power supplied in the year
as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	8.01		61.78		61.78
	76.89		552.77		1,368.09
	57.80		63.05		416.16
	5.92		46.33		46.33
52.11		567.48		1,922.33	
	187.28		557.99		3,027.04
	26.46		82.30		421.90
	213.20	166.32			5,376.90
	70.53		422.35		1,484.04
	31.50		416.92		1,235.92
	154.24		1,737.74		3,258.61
	8.75		140.47		205.34
	32.00		627.83		627.83
	54.14		146.35		1,456.52
	55.73	560.17		559.47	
	411.97		1,937.87		6,829.77
448.50		3,241.71		14,895.14	
	197.80	587.07			1,485.57
922.94	3,742.72	9,638.74	19,000.52	31,665.04	64,000.89
842.80	664.38	97,607.83	1,912.72	91,875.06	11,202.84
1,765.74	4,407.10	107,246.57	20,913.24	123,540.10	75,203.73

GEORGIAN BAY SYSTEM

Reserve for Obsolescence and Contingencies—October 31, 1934

Balance brought forward October 31, 1933		$429,836.32
Added during the year ending October 31, 1934:		
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them	$24,988.45	
Amounts included in the costs of distribution of power within rural power districts	15,278.55	
Provision against equipment employed in respect of contracts with private companies which purchased power and against local distribution systems	3,303.17	
Share of profits on sale of securities in which a portion of the Reserve funds of the Commission stood invested	1,456.69	
Commission's share of American and Sterling exchange (net credit) on the transfer of funds to New York and London by the Province of Ontario to meet capital retirements, inclusive of adjustments of amounts overcharged the Commission in years 1932 and 1933 Note—Above amount is exclusive of exchange on interest coupons.	7,006.26	
Interest at 4% per annum on monthly balances at the credit of the account	17,193.45	
		69,226.57
		$499,062.89
Deduct:		
Contingencies met with during the year ending October 31, 1934		2,254.75
Balance carried forward October 31, 1934		$496,808.14

GEORGIAN BAY SYSTEM *G.B.—SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder, as part of the cost of power delivered thereto, together with the proportionate share of other sinking funds provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Municipality	Period of years ending Oct. 31, 1934	Amount
		$ c.
Alliston	11 years	12,801.88
Arthur	13 “	11,941.01
Barrie	16 “	82,793.94
Beaverton	15 “	13,313.97
Beeton	11 “	9,678.86
Bradford	11 “	10,737.95
Brechin	15 “	5,143.14
Cannington	15 “	10,006.32
Chatsworth	14 “	2,539.52
Chesley	13 “	21,170.73
Coldwater	16 “	8,211.40
Collingwood	16 “	88,206.95
Cookstown	11 “	3,019.34
Creemore	15 “	7,381.27
Dundalk	14 “	7,148.60
Durham	14 “	19,769.43
Elmvale	16 “	9,812.03
Elmwood	11 “	2,324.56
Flesherton	14 “	4,056.95
Grand Valley	13 “	7,271.13
Gravenhurst	14 “	13,959.51
Hanover	13 “	50,548.25
Holstein	13 “	2,325.71
Huntsville	13 “	34,460.79
Kincardine	10 “	21,703.66
Kirkfield	10 “	1,931.25
Lucknow	10 “	10,495.63
Markdale	13 “	5,733.33
Meaford	10 “	14,752.42
Midland	16 “	137,711.90
Mildmay	2 “	550.29
Mount Forest	14 “	18,334.63
Neustadt	11 “	6,056.57
Orangeville	13 “	24,348.09
Owen Sound	14 “	115,170.28
Paisley	10 “	6,068.38
Penetanguishene	18 “	39,550.40
Port Elgin	4 “	2,772.37
Port McNicoll	15 “	3,726.13
Port Perry	10 “	8,939.00
Priceville	10 “	966.59
Ripley	10 “	4,390.87
Rosseau	4 “	1,149.44
Shelburne	13 “	11,269.10
Southampton	4 “	2,790.45
Stayner	16 years	9,696.14
Sunderland	15 “	6,707.68
Tara	11 “	5,155.34
Teeswater	10 “	7,178.07
Thornton	11 “	1,994.06
Tottenham	11 “	6,276.06
Uxbridge	10 “	9,595.22
Victoria Harbour	15 “	4,051.13
Walkerton	4 “	5,485.64
Waubaushene	15 “	2,305.71
Wiarton	4 “	4,406.07
Windermere	5 “	938.52
Wingham	10 “	20,605.32
Woodville	15 “	6,721.22
RURAL POWER DISTRICTS*		
Alliston R.P.D.	5 years	2,542.23
Arthur R.P.D.	5 “	174.08
Bala R.P.D.	5 “	2,869.60
Barrie R.P.D.	12 “	8,307.19
Baysville R.P.D.	3 “	1,332.97
Beaumaris R.P.D.	7 “	4,472.92
Beaverton R.P.D.	9 “	3,500.75
Beeton R.P.D.	9 “	131.18
Bradford R.P.D.	6 “	1,404.45
Bruce R.P.D.	4 “	2,270.63
Buckskin R.P.D.	7 “	610.97
Cannington R.P.D.	11 “	3,118.76
Chatsworth R.P.D.	6 “	320.78
Cookstown R.P.D.	4 “	30.03
Creemore R.P.D.	4 “	1,532.03
Elmvale R.P.D.	11 “	2,356.69
Flesherton R.P.D.	13 “	556.54
Gravenhurst R.P.D.	6 “	651.59
Hawkestone R.P.D.	5 “	1,145.64
Holstein R.P.D.	6 “	34.82
Huntsville R.P.D.	4 “	1,179.28
Innisfil R.P.D.	7 “	6,277.14
Lucknow R.P.D.	9 “	33.95
Mariposa R.P.D.	12 “	7,911.98
Markdale R.P.D.	11 “	1,032.84
Meaford R.P.D.	6 “	53.89

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*For townships included in rural power districts see “Cost of Power” and “Rural Operating” statements preceding.

GEORGIAN BAY SYSTEM *G.B.—SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder, as part of the cost of power delivered thereto, together with the proportionale share of other sinking funds provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Rural power district*	Period of years ending Oct. 31, 1934	Amount	Rural power district*	Period of years ending Oct. 31, 1934	Amount
		$ c.			$ c.
Medonte R.P.D.	5 years	571.26	Tara R.P.D.	10 years	2,382.55
Midland R.P.D.	4 "	642.95	Thornton R.P.D.	5 "	554.06
Neustadt R.P.D.	8 "	35.44	Utterson R.P.D.	5 "	1,792.37
Nottawasaga R.P.D.	13 "	2,661.68			
			Uxbridge R.P.D.	10 "	4,726.82
Orangeville R.P.D.	8 "	1,871.74	Wasaga Beach R.P.D.	12 "	8,786.41
Owen Sound R.P.D.	4 "	369.53	Wroxeter R.P.D.	6 "	4,804.22
Port Perry R.P.D.	12 "	4,599.50			
Ripley R.P.D.	9 "	418.28			
Sauble R.P.D.	4 "	325.51	Totals		$1,062,474.58
Shelburne R.P.D.	9 "	1,105.93			
Sparrow Lake R.P.D.	10 "	4,823.20			

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

GEORGIAN BAY SYSTEM

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933		$936,659.56
Provided in the year ending October 31, 1934:		
By charges included in the cost of power delivered to municipalities and rural power districts	$71,847.17	
By charges included in the costs of distribution of power within rural power districts	8,450.52	
By charges against contracts with private companies which purchased power and local distribution systems	8,050.95	
Interest at 4% per annum on the amount standing at the credit of the reserve accounts	37,466.38	
		125,815.02
Total		$1,062,474.58

GEORGIAN BAY SYSTEM—RURAL LINES

Statement showing Interest, Sinking Fund, Renewals and Contingencies charged by the Commission to the Municipalities which operate the respective rural lines for the year ending October 31, 1934

Operated by	Capital cost	Interest	Sinking fund	Renewals	Contingencies	Total interest, sinking fund, renewals and contingencies charged
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Brechin	922.02	48.22	16.60	18.44	9.22	92.48
Flesherton	1,885.41	105.77	33.94	37.71	18.85	196.27
Totals	2,807.43	153.99	50.54	56.15	28.07	288.75

GEORGIAN BAY SYSTEM—RURAL LINES

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933		$517.15
Added during the year ending October 31, 1934:		
By charges against the municipalities which operate the lines	$56.15	
Interest at 4% per annum on the monthly balances at the credit of the account	20.69	
		76.84
Balance carried forward October 31, 1934		$593.99

Reserve for Obsolescence and Contingencies—October 31, 1934

Balance brought forward October 31, 1933		$222.36
Added during the year ending October 31, 1934:		
By charges against the municipalities which operate the lines	$28.07	
Interest at 4% per annum on the monthly balances at the credit of the account	8.89	
		36.96
Balance carried forward October 31, 1934		$259.32

EASTERN ONTARIO

Operating Account for Year

COSTS OF OPERATION AS PROVIDED UNDER THE TERMS OF THE POWER COMMISSION ACT

Power purchased		$833,980.26
Costs of operation and maintenance, including the proportion of administrative expenses chargeable to the operation of the system:		
Generation, transmission and distribution equipment	$602,218.79	
Rural power districts	122,170.71	
		724,389.50
Interest (including exchange thereon) on capital investment in:		
Generation, transmission and distribution equipment	$ 831,133.35	
Rural power districts	82,273.43	
		913,406.78
Provision for renewals of:		
Generation, transmission and distribution equipment	$177,291.97	
Rural power districts	65,611.42	
		242,903.39
Provision for obsolescence and contingencies in respect of:		
Generation, transmission and distribution equipment	$52,118.37	
Rural power districts	32,805.71	
		84,924.08
Provision for sinking funds:		
By charges included in the cost of power delivered to municipalities and rural power districts	$109,931.07	
By charges against contracts with private companies which purchased power and local distribution systems	47,341.45	
By charges included in the cost of distribution of power within rural power districts	17,540.50	
		174,813.02
		$2,974,417.03

GEORGIAN BAY SYSTEM—RURAL LINES

Statement showing the total Sinking Fund paid in respect of each line, together with interest allowed thereon to October 31, 1934

Lines operated by	Period of years ending October 31, 1934	Amount
		$ c.
Brechin	16 years	332.55
Flesherton	17 "	598.26
Total		930.81

Reserve for Sinking Fund

Total provision for sinking fund to October 31, 1933		$846.41
Provided in year ending October 31, 1934—		
By charges against municipalities which operate the lines	$50.54	
Interest at 4% per annum on amounts standing at the credit of the reserve accounts	33.86	
		84.40
Total		$930.81

SYSTEM

Ending October 31, 1934

REVENUE FOR PERIOD

Amounts received from (or billed against) municipalities at interim monthly rates	$1,932,028.06	
Amounts received from (or billed against) customers in rural power districts	479,968.71	
Power sold to private companies	584,938.02	
Amounts received from customers in local electric distribution systems	24,500.63	
Power supplied to Pulp Mill at Campbellford	46,514.03	
Amounts received from customers of the Gas Works	16,059.14	
		$3,084,008.59
Add:		
Amounts due by certain municipalities, being the difference between the sums received (or billed) at interim monthly rates and the amounts charged—following annual adjustment—in respect of power supplied in the year	$6,397.97	
Amounts due by municipalities comprising certain rural power districts, being the difference between the sums received from (or billed against) customers therein and the amounts charged to such districts—following annual adjustment—in respect of power supplied in the year	29,488.03	
		35,886.00
		$3,119,894.59
Deduct:		
Amounts received from (or billed against) certain municipalities at interim monthly rates in excess of the amounts charged—following annual adjustment—in respect of power supplied in the year	$140,252.33	
Amounts received from (or billed against) customers in certain rural power districts in excess of the amounts charged to such districts—following annual adjustment	5,340.51	
		145,592.84
Revenue		$2,974,301.75
Add:		
Amount charged against the obsolescence and contingency reserve, which amount comprises:		
(a) Loss on operation of local gas works	$4,064.39	
(b) Profit from power sold to customers on local electric distribution systems owned by the Commission	3,949.11	
		115.28
		$2,974,417.03

EASTERN ONTARIO

Statement showing the amount to be paid by each Municipality as the cost—under received by the Commission from each Municipality on account of such cost; pality upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Alexandria	66.00	66.00	94,766.11	201.6	1,647.57	2,717.36	4,517.16
Apple Hill	54.00	57.00	11,075.92	29.0	237.00	352.95	527.92
Athens	63.00	60.00	29,113.41	74.3	607.22	718.33	1,420.96
Bath	95.00	80.00	18,755.75	29.1	237.82	400.48	924.04
Belleville	38.00	37.00	773,209.66	3,767.8	30,792.30	27,323.59	37,851.18
Bloomfield	61.00	61.00	28,177.59	73.3	599.04	959.58	1,376.31
Bowmanville	41.50	41.50	387,825.60	1,659.1	13,558.97	14,701.09	19,108.38
Brighton	46.00	43.00	58,209.26	239.5	1,957.31	2,089.95	2,853.53
Brockville	34.00	34.00	423,336.88	2,362.4	19,306.72	13,360.59	20,280.36
Cardinal	40.00	42.00	28,035.67	134.4	1,098.38	1,111.52	1,373.03
Carleton Place	37.00	37.00	237,734.51	1,129.3	9,229.19	6,184.44	11,510.29
Chesterville	44.00	44.00	45,024.74	172.6	1,410.57	1,972.66	2,112.25
Cobourg	41.00	41.00	305,503.00	1,349.5	11,028.77	12,398.10	15,057.29
Colborne	39.79	41.00	29,635.44	117.1	957.00	971.11	1,463.26
Deseronto	54.50	56.00	45,138.59	121.2	990.51	1,343.94	2,218.40
Finch	65.00	65.00	19,998.28	47.4	387.38	676.01	975.53
Hastings	55.00	52.00	25,668.40	74.6	609.67	807.74	1,263.79
Havelock	55.00	53.00	47,381.26	125.7	1,027.28	1,368.22	2,305.92
Kemptville	42.50	42.50	69,968.08	262.1	2,142.01	1,998.34	3,397.80
Lakefield	53.50	48.00	62,379.02	203.9	1,666.37	1,963.98	3,053.08
Lanark	50.00	50.00	21,812.41	68.3	558.18	555.79	1,058.93
Lancaster	97.00	90.00	26,840.87	35.5	290.12	654.42	1,293.15
Lindsay	44.00	43.00	427,582.66	1,732.7	14,160.47	19,127.36	20,919.18
Madoc	50.00	50.00	38,942.94	139.8	1,142.51	1,755.65	1,908.73
Marmora	53.00	52.00	26,774.58	88.9	726.53	1,162.51	1,297.66
Martintown	57.00	52.00	5,890.27	20.2	165.08	293.90	280.73
Maxville	62.00	66.00	31,985.83	72.8	594.96	915.78	1,528.06
Napanee	40.00	40.00	206,793.52	926.0	7,567.72	8,125.48	10,133.91
Norwood	41.00	43.00	23,121.23	92.2	753.50	987.29	1,126.01
Oshawa	41.00	35.00	2,230,725.96	9,377.7	76,639.14	76,432.86	109,125.30
Ottawa	26.90	26.90	771,735.19	6,758.7	55,235.43	27,452.06	37,912.75
Ottawa	....	......	964.71	18,928.5	208,213.50	352.82	47.66
Perth	35.00	35.00	217,945.42	1,137.4	9,295.39	5,814.70	10,570.53
Peterborough	32.00	33.00	1,168,401.16	6,058.5	49,513.02	37,706.01	57,041.60
Picton	50.00	48.00	264,629.68	820.9	6,708.80	8,905.03	12,946.86
Port Hope	43.20	42.00	260,378.90	1,161.0	9,488.26	11,295.02	12,763.03
Prescott	34.00	33.00	126,682.86	755.4	6,173.50	4,884.42	6,072.94
Richmond	55.00	55.00	18,234.00	45.5	371.85	501.45	895.79
Russell	66.00	64.00	19,460.21	43.8	357.95	751.27	942.15
Smiths Falls	32.00	32.00	261,544.25	1,608.0	13,141.38	8,047.54	12,617.26

SYSTEM *E.O.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Munici- of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,608.55	294.88	962.93	590.29	12,338.74	13,306.20	967.46	....
179.93	41.41	111.43	84.91	1,535.55	1,634.34	98.79	....
483.92	95.15	297.55	217.55	3,840.68	4,499.57	658.89	....
310.56	54.74	194.14	85.20	2,206.98	2,399.10	192.12	....
7,107.87	2,503.94	7,708.18	11,032.19	124,319.25	140,081.80	15,762.55	....
401.01	86.19	288.28	214.62	3,925.03	4,470.73	545.70	....
4,079.12	1,226.29	3,893.99	4,857.88	61,425.72	68,853.99	7,428.27	....
633.23	199.19	585.48	701.26	9,019.95	10,442.24	1,422.29	....
5,335.71	1,604.38	4,168.77	6,917.15	70,973.68	80,322.41	9,348.73	....
382.77	118.00	278.88	393.53	4,756.11	5,599.98	843.87	....
3,301.50	894.15	2,375.51	3,306.61	36,801.69	41,783.53	4,981.84	....
671.98	163.97	453.12	505.38	7,289.93	7,592.17	302.24	....
3,118.91	996.38	3,062.55	3,951.36	49,613.36	55,328.13	5,714.77	....
333.17	102.85	298.65	342.87	4,468.91	4,775.15	306.24	....
633.96	165.59	461.36	354.88	6,168.64	6,757.08	588.44	....
337.22	65.52	204.82	138.79	2,785.27	3,080.42	295.15	....
347.99	83.76	261.74	218.43	3,593.12	3,915.96	322.84	....
668.96	151.45	484.52	368.05	6,374.40	6,713.96	339.56	....
1,062.09	249.30	707.10	767.43	10,324.07	11,139.55	815.48	....
795.52	194.67	633.47	597.02	8,904.11	10,002.03	1,097.92	....
348.37	78.43	221.95	199.98	3,021.63	3,415.37	393.74	....
487.71	80.48	277.21	103.94	3,187.03	3,249.17	62.14	....
4,710.21	1,321.88	4,303.73	5,073.38	69,616.21	74,823.34	5,207.13	....
468.60	126.43	393.86	409.34	6,205.12	6,989.55	784.43	....
333.39	95.05	269.10	260.30	4,144.54	4,636.73	492.19	....
89.87	21.85	58.94	59.15	969.52	1,069.11	99.59	....
535.91	105.11	324.05	213.16	4,217.03	4,750.06	533.03	....
2,082.91	678.23	2,071.33	2,711.35	33,370.93	37,038.97	3,668.04	....
258.02	82.01	232.90	269.96	3,709.69	3,926.59	216.90	....
23,826.66	6,913.70	22,415.47	27,458.09	342,811.22	336,413.25	....	6,397.97
6,545.62	3,260.72	7,359.76	19,789.68	157,556.02	181,808.55	24,252.53	....
19.30	4.82	10.16	....	208,648.26	208,648.26	....	....
2,895.29	841.89	2,166.22	3,330.33	34,914.35	39,809.26	4,894.91	....
9,936.17	3,473.91	11,608.41	17,739.41	187,018.53	198,821.41	11,802.88	....
3,470.80	790.89	2,691.43	2,403.61	37,917.42	39,697.53	1,780.11	....
2,634.23	840.73	2,608.97	3,399.43	43,029.67	49,012.76	5,983.09	....
1,530.59	495.34	1,240.59	2,211.83	22,609.21	25,049.00	2,439.79	....
304.85	58.10	186.85	133.22	2,452.11	2,500.18	48.07	....
331.21	63.27	199.60	128.24	2,773.69	2,819.17	45.48	....
3,161.74	1,043.63	2,572.05	4,708.26	45,291.86	51,454.36	6,162.50	....

EASTERN ONTARIO

Statement showing the amount to be paid by each Municipality as the cost—under received by the Commission from each Municipality on account of such cost; pality upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
	To Jan. 1 1934	To Oct. 31 1934				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.
Stirling	34.50	34.50	40,861.21	223.6	1,827.37	1,543.91	2,001.44
Trenton	32.20	32.00	472,248.94	2,740.6	22,397.52	13,733.10	23,262.86
Tweed	58.00	63.00	59,303.50	152.8	1,248.75	2,491.60	2,915.10
Warkworth	57.00	53.00	18,662.64	57.5	469.92	693.45	913.11
Wellington	49.00	47.00	46,305.84	154.8	1,265.10	1,532.90	2,263.84
Westport	85.00	80.00	37,696.38	61.4	501.79	736.64	1,856.40
Whitby	40.00	40.00	224,717.80	942.8	7,705.02	7,487.16	10,984.07
Williamsburg	41.00	40.00	27,991.01	152.3	1,244.67	1,309.89	1,363.85
Winchester	42.00	40.00	51,028.13	227.0	1,855.15	1,885.03	2,447.19
RURAL POWER DISTRICTS							
Alexandria R.P.D.—Hawkesbury E. and Lochiel twps.			14,179.99	29.1	237.82	550.09	685.93
Arnprior R.P.D.—Fitzroy twp.			....	....	1,185.98	....	....
Belleville R.P.D.—Huntingdon, Sidney, Thurlow and Tyendinaga twps.			62,021.46	294.5	2,406.80	2,058.49	3,019.35
Bowmanville R.P.D.—Darlington twp.			25,098.93	104.7	855.66	929.65	1,228.58
Brighton R.P.D.—Brighton, Cramahe and Murray twps.			5,541.43	22.8	186.33	179.37	270.80
Brockville R.P.D.—Augusta, Elizabethtown, Escott Front, Leeds and Lansdowne Front, Leeds and Lansdowne Rear, Yonge and Escott Rear and Yonge Front twps.			56,938.53	266.8	2,180.42	1,776.65	2,749.37
Campbellford R.P.D. — Rawdon and Seymour twps.			12,285.36	64.0	523.04	329.54	595.30
Carleton Place R.P.D.—Ramsay twp.			....	....	21.46	....	....
Chesterville R.P.D.—Cambridge, Finch, Osnabruck, Russell, Williamsburg and Winchester twps.			54,262.54	175.7	1,435.90	1,782.47	2,633.00
Cobourg R.P.D.—Alnwick, Haldimand, Hamilton and Hope twps.			55,531.00	236.2	1,930.34	1,684.51	2,695.13
Colborne R.P.D.—Cramahe and Haldimand twps.			27,479.39	103.4	845.03	821.44	1,343.41
Fenelon Falls R.P.D. — Bexley, Fenelon, Laxton, Digby and Longford, Somerville and Verulam twps.			13,483.31	45.2	369.40	574.31	661.26
Iroquois R.P.D.—Gower S., Matilda, Mountain, Oxford, Williamsburg and Winchester twps.			53,512.06	380.0	3,105.55	1,793.87	2,594.95

SYSTEM *E.O.—COST OF POWER*

**the Power Commission Act—of Power supplied to it by the Commission; the amount
and the amount remaining to be credited or charged to each Munici-
of power supplied to it in the year ending October 31, 1934**

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
321.31	123.64	404.53	654.70	6,876.90	7,714.15	837.25	....
3,369.24	1,415.36	4,658.59	8,024.53	76,861.20	87,800.33	10,939.13	....
847.19	178.03	606.88	447.40	8,734.95	9,489.69	754.74	....
245.78	60.97	189.93	168.36	2,741.52	3,091.36	349.84	....
582.84	146.01	469.80	453.26	6,713.75	7,337.23	623.48	....
674.64	125.14	389.85	179.78	4,464.24	4,968.31	504.07	....
2,404.64	662.31	2,258.42	2,760.53	34,262.15	37,713.30	3,451.15	....
358.17	112.99	276.23	445.94	5,111.74	6,119.18	1,007.44	....
720.02	196.24	509.73	664.66	8,278.02	9,163.55	885.53	....
242.21	45.07	144.27	85.21	1,990.60	1,990.60	see page	241
....	....	....	....	1,185.98	1,185.98	"	"
587.29	203.54	619.17	862.30	9,756.94	9,756.94	"	"
269.91	80.51	252.31	306.56	3,923.18	3,923.18	"	"
60.27	18.96	55.73	66.76	838.22	838.22	"	"
789.51	213.55	569.22	781.20	9,059.92	9,059.92	"	"
103.82	39.43	122.02	187.39	1,900.54	1,900.54	"	"
....	....	....	....	21.46	21.46	....	....
852.66	192.80	550.02	514.45	7,961.30	7,961.30	"	"
587.08	184.49	557.71	691.60	8,330.86	8,330.86	"	"
320.40	97.37	277.53	302.76	4,007.94	4,007.94	"	"
169.46	45.55	136.79	132.35	2,089.12	2,089.12	"	"
567.14	208.21	517.29	1,112.65	9,899.66	9,899.66	"	"

EASTERN ONTARIO

Statement showing the amount to be paid by each Municipality as the cost—under received by the Commission from each Municipality on account of such cost; pality upon ascertainment (by annual adjustment) of the actual cost

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Kemptville R.P.D.—Oxford twp.	5,326.42	18.7	152.83	141.07	261.11
Kingston R.P.D.—Bedford, Ernestown, Hinchinbrooke, Kingston, Leeds and Lansdowne Front, Loughborough, Oso, Pittsburgh and Portland twps.	76,289.48	304.9	3,518.29	3,632.06	3,722.15
Lakefield R.P.D.—Burleigh and Anstruther, Douro, Harvey and Smith twps.	9,758.49	36.1	295.03	300.29	478.03
Lindsay R.P.D.—Fenelon, Ops and Verulam twps.	6,671.33	24.4	199.41	260.05	327.38
Martintown R.P.D.—Charlottenburg and Lancaster twps.	14,237.91	50.5	412.71	389.00	667.95
Maxville R.P.D.—Caledonia, Kenyon, Plantagenet N., Plantagenet S. and Roxborough twps.	61,985.13	146.7	1.198.91	1,414.34	2,986.56
Millbrook R.P.D.—Cavan, Manvers and Monaghan S. twps.	12,180.50	39.2	320.36	572.89	596.14
Napanee R.P.D.—Camden E., Ernestown, Fredericksburg N., Fredericksburg S., Hungerford, Portland, Richmond, Sheffield and Tyendinaga twps.	54,685.63	199.4	1,629.59	1,558.39	2,668.87
Nepean R.P.D.—Clarence, Cumberland, Gloucester, Goulburn, Gower N., March, Nepean and Osgoode twps.	80,317.55	575.5	4,703.27	2,442.57	3,893.38
Newcastle R.P.D.—Clarke, Darlington and Manvers twps.	17,904.75	64.1	523.86	671.52	873.94
Norwood R.P.D.—Asphodel, Belmont and Methuen, Dummer and Seymour twps.	12,497.41	35.7	291.75	343.05	612.70
Omemee R.P.D.—Emily and Ops twps.	1,195.73	3.9	31.87	44.01	58.51
Oshawa R.P.D.—Darlington, Pickering, Uxbridge, Whitby and Whitby E. twps.	152,674.09	630.9	5,156.02	6,277.71	7,438.00
Perth R.P.D.—Bathurst, Burgess N., Dalhousie and Sherbrooke N., Drummond, Elmsley N, and Elmsley S., twps.	8,680.34	32.4	371.26	288.26	364.13
Peterborough R.P.D.—Cavan, Douro, Monaghan N., Monaghan S., Otonabee and Smith twps.	96,282.15	472.0	3,857.42	3,551.94	4,681.55
Prescott R.P.D. — Augusta, Edwardsburg and Matilda twps.	19,648.47	107.9	1,069.09	929.24	928.66

SYSTEM *E.O.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Munici- of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
82.47	19.46	53.96	54.75	765.65	765.65	see page	241
849.57	245.76	768.23	892.75	13,628.81	13,628.81	“	“
115.12	29.73	98.62	105.70	1,422.52	1,422.52	“	“
79.34	21.83	67.45	71.44	1,026.90	1,026.90	“	“
214.90	53.03	142.21	147.86	2,027.66	2,027.66	“	“
1,030.20	211.12	626.81	429.53	7,897.47	7,897.47	“	“
156.70	42.56	123.77	114.78	1,927.20	1,927.20	see page	243
651.51	180.58	552.91	583.85	7,825.70	7,825.70	“	“
849.44	347.31	780.46	1,685.08	14,701.51	14,701.51	“	“
216.02	61.20	181.20	187.69	2,715.43	2,715.43	“	“
170.79	41.57	127.51	104.53	1,691.90	1,691.90	“	“
15.25	4.19	12.14	11.42	177.39	177.39	“	“
1,654.98	468.96	1,535.43	1,847.29	24,378.39	24,378.39	“	“
106.72	30.04	74.48	94.86	1,329.75	1,329.75	“	“
879.23	296.39	959.71	1,382.02	15,608.26	15,608.26	“	“
249.70	78.53	193.56	315.93	3,764.71	3,764.71	“	“

EASTERN ONTARIO

Statement showing the amount to be paid by each Municipality as the cost—under
received by the Commission from each Municipality on account of such cost;
pality upon ascertainment (by annual adjustment) of the actual cost

Rural power district	Share of capital cost of system on which interest and fixed charges are payable	Average horse-power supplied in year after correction for power factor	Cost of power purchased	Share of operating	
				Operating, maintenance and administrative expenses	Interest (including exchange)
	$ c.		$ c.	$ c.	$ c.
Renfrew R.P.D.—Admaston and Horton twps.	....	....	314.02	....	....
Smiths Falls R.P.D.—Bastard and Burgess S., Crosby S., Kitley, Montague and Wolford twps.	36,044.61	143.9	1,176.02	783.10	1,752.16
Stirling R.P.D.—Rawdon and Sidney twps.	8,699.60	43.6	356.32	387.12	421.30
Trenton R.P.D.—Brighton, Murray and Sidney twps.	35,092.18	187.9	1,535.61	1,356.34	1,720.36
Warkworth R.P.D.—Percy twp.	709.69	3.0	24.52	31.11	34.53
Wellington R.P.D. — Ameliasburg, Athol, Hallowell, Hillier and Murray twps.	51,559.34	169.3	1,383.60	1,472.11	2,514.86
Williamsburg R.P.D.—Matilda and Williamsburg twps.	9,465.10	51.5	420.88	359.68	460.38
Totals—Municipalities	9,870,199.27	66,758.5	599,103.66	340,555.02	482,080.57
Totals—Rural power districts	1,152,239.90	5,063.9	44,226.37	39,686.24	55,939.73
Totals—Companies	5,700,389.29	21,279.7	173,908.07	184,891.37	269,379.17
Totals—Local electric distribution systems	136,924.48	274.0	2,239.26	8,419.47	6,766.70
Totals—Local gas distribution system	26,466.13	....	....	18,816.31	1,307.22
Totals—Pulp Mill	316,979.81	1,774.6	14,502.90	9,850.38	15,659.96
	17,203,198.88				
Non-operating capital	21,168.85				
Campbellford Pulp Mill	52,559.93				
Grand totals	17,276,927.66	95,150.7	833,980.26	602,218.79	831,133.35

SYSTEM *E.O.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Munici- of power supplied to it in the year ending October 31, 1934

costs and fixed charges			Cost in excess of revenue from power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Obsolescence and contingencies	Sinking fund				Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
......	......	......	......	314.02	314.02	see page	243
535.25	150.62	363.02	421.34	5,181.51	5,181.51	"	"
77.28	27.76	86.58	127.66	1,484.02	1,484.02	"	"
285.28	110.75	347.98	550.17	5,906.49	5,906.49	"	"
7.55	2.51	7.13	8.78	116.13	116.13	"	"
655.74	167.40	523.44	495.71	7,212.86	7,212.86	"	"
121.12	38.21	93.40	150.79	1,644.46	1,644.46	"	"
105,289.25	32,688.97	98,409.01	140,047.22	1,798,173.70	1,932,028.06	140,252.33	6,397.97
13,553.91	3,958.99	11,522.06	14,827.16	183,714.46	183,714.46	......	......
54,044.25	14,227.80	43,361.74	(154,874.38)	584,938.02	584,938.02	......	......
2,007.02	269.57	849.50	......	20,551.52	24,500.63	*3,949.11	......
......	......	......	......	20,123.53	16,059.14	......	4,064.39*
2,397.54	973.04	3,130.21	......	46,514.03	46,514.03	......	......
177,291.97	52,118.37	157,272.52	......	2,654,015.26	2,787,754.34	......	......

* Written off to contingencies reserve.

EASTERN ONTARIO SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Alexandria R.P.D.—Hawkesbury E. and Lochiel twps.	27,788.56	13,894.28	13,894.28	1,990.60
Arnprior R.P.D.—Fitzroy twp.	12,709.26	6,111.00	6,598.26	1,185.98
Belleville R.P.D.—Huntingdon, Sidney, Thurlow and Tyendinaga twps.	150,108.21	74,375.14	75,733.07	9,756.94
Bowmanville R.P.D.—Darlington twp.	41,409.79	20,704.89	20,704.90	3,923.18
Brighton R.P.D.—Brighton, Cramahe and Murray twps.	15,292.75	7,646.38	7,646.37	838.22
Brockville R.P.D.—Augusta, Elizabethtown, Escott Front, Leeds and Lansdowne Front, Leeds and Lansdowne Rear, Yonge and Escott Rear and Yonge Front twps.	*229,754.33	112,684.53	117,069.80	9,059.92
Campbellford R.P.D.—Rawdon and Seymour twps.	36,562.64	18,281.32	18,281.32	1,900.54
Carleton Place R.P.D.—Ramsay twp.	897.79	448.89	448.90	21.46
Chesterville R.P.D.—Cambridge, Finch, Osnabruck, Russell, Williamsburg and Winchester twps.	*95,818.12	46,143.14	49,674.98	7,961.30
Cobourg R.P.D.—Alnwick, Haldimand, Hamilton and Hope twps.	190,863.32	94,695.45	96,167.87	8,330.86
Colborne R.P.D.—Cramahe and Haldimand twps.	58,826.08	29,413.04	29,413.04	4,007.94
Fenelon Falls R.P.D.—Bexley, Fenelon, Laxton, Digby and Longford, Somerville and Verulam twps.	51,307.17	25,229.41	26,077.76	2,089.12
Iroquois R. P. D.—Gower S., Matilda, Mountain, Oxford, Williamsburg and Winchester twps.	176,712.72	88,013.01	88,699.71	9,899.66
Kemptville R.P.D.—Oxford twp.	11,338.27	5,522.31	5,815.96	765.65
Kingston R.P.D.—Bedford, Ernestown, Hinchinbrooke, Kingston, Leeds and Lansdowne Front, Loughborough, Oso, Pittsburgh and Portland twps.	266,646.40	129,277.00	137,369.40	13,628.81
Lakefield R.P.D.—Burleigh and Anstruther, Douro, Harvey and Smith twps.	*52,876.60	26,327.63	26,548.97	1,422.52
Lindsay R.P.D.—Fenelon, Ops and Verulam twps.	41,161.85	20,580.92	20,580.93	1,026.90
Martintown R.P.D.—Charlottenburg and Lancaster twps.	52,739.02	26,369.51	26,369.51	2,027.66
Maxville R.P.D.—Caledonia, Kenyon, Plantagenet N., Plantagenet S. and Roxborough twps.	118,972.75	59,486.38	59,486.37	7,897.47

NOTE—Items marked * include portions of transmission lines aggregating $22,904.51 used for purposes of rural power districts.

RURAL POWER DISTRICTS *E.O.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,004.15	680.53	551.13	275.56	145.08	4,647.05	3,761.55	......	885.50
478.73	324.79	254.19	127.09	69.48	2,440.26	2,559.79	119.53	....
4,908.01	3,709.18	2,976.71	1,488.36	790.77	23,629.97	26,465.67	2,835.70	....
1,057.19	1,020.46	826.42	413.21	217.55	7,458.01	7,768.78	310.77	....
601.34	365.31	295.85	147.92	77.88	2,326.52	2,531.78	205.26	....
9,127.18	5,700.53	4,528.87	2,264.43	1,215.31	31,896.24	32,135.30	239.06	....
1,016.82	901.38	729.98	364.99	192.17	5,105.88	4,253.87	....	852.01
4.95	22.12	17.95	8.98	4.73	80.19	60.54	....	19.65
5,406.17	2,438.93	1,904.53	952.27	519.96	19,183.16	16,014.19	....	3,168.97
4,883.74	4,692.08	3,770.43	1,885.21	1,000.32	24,562.64	23,769.11	....	793.53
2,800.25	1,377.66	1,115.70	557.85	293.71	10,153.11	8,590.95	....	1,562.16
1,066.54	1,119.67	889.80	444.90	238.70	5,848.73	5,331.81	....	516.92
7,206.91	4,335.88	3,497.68	1,748.84	924.38	27,613.35	27,677.93	64.58	....
232.48	287.24	226.75	113.38	61.24	1,686.74	1.879.96	193.22	....
12,143.53	6,719.83	5,379.30	2,689.65	1,432.62	41,993.74	36,416.56	....	5,577.18
1,101.06	1,219.55	983.23	491.61	260.00	5,477.97	3,991.79	....	1,486.18
1,389.96	984.90	797.62	398.81	209.97	4,808.16	3,736.91	....	1,071.25
1,951.59	1,295.68	1,049.30	524.65	276.23	7,125.11	7,514.67	389.56	....
3,595.76	2,930.44	2,373.20	1,186.61	624.75	18,608.23	17,643.27	....	964.96

EASTERN ONTARIO SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Millbrook R.P.D.—Cavan, Manvers and Monaghan S. twps.	32,725.46	16,078.83	16,646.63	1,927.20
Napanee R.P.D.—Camden E., Ernestown, Fredericksburg N., Fredericksburg S., Hungerford, Portland, Richmond, Sheffield and Tyendinaga twps.	*208,608.05	101,217.97	107,390.08	7,825.70
Nepean R.P.D. — Clarence, Cumberland, Gloucester, Goulburn, Gower N., March, Nepean and Osgoode twps.	*340,829.57	166,000.16	174,829.41	14,701.51
Newcastle R.P.D.—Clarke, Darlington and Manvers twps.	*42,054.83	20,096.71	21,958.12	2,715.43
Norwood R.P.D.—Asphodel, Belmont and Methuen, Dummer and Seymour twps.	*19,624.43	9,485.28	10,139.15	1,691.90
Omemee R.P.D.—Emily and Ops twps.	7,216.99	3,608.49	3,608.50	177.39
Oshawa R.P.D.—Darlington, Pickering, Uxbridge, Whitby and Whitby E. twps.	288,550.35	140,722.66	147,827.69	24,378.39
Perth R.P.D.—Bathurst, Burgess N., Dalhousie and Sherbrooke N., Drummond, Elmsley N. and Elmsley S. twps.	32,372.08	16,186.04	16,186.04	1,329.75
Peterborough R.P.D.—Cavan, Douro, Monaghan N., Monaghan S., Otonabee and Smith twps.	*180,673.00	90,281.16	90,391.84	15,608.26
Prescott R.P.D.—Augusta, Edwardsburg and Matilda twps.	76,479.21	38,058.50	38,420.71	3,764.71
Renfrew R.P.D.—Admaston and Horton twps.	7,883.74	3,941.87	3,941.87	314.02
Smiths Falls R.P.D.—Bastard and Burgess S., Crosby S., Kitley, Montague and Wolford twps.	*121,021.04	58,494.54	62,526.50	5,181.51
Stirling R.P.D.—Rawdon and Sidney twps.	*51,478.61	23,362.56	28,116.05	1,484.02
Trenton R.P.D.—Brighton, Murray and Sidney twps.	*77,844.44	38,828.83	39,015.61	5,906.49
Warkworth R.P.D.—Percy twp.	*1,671.04	648.75	1,022.29	116.13
Wellington R.P.D.—Ameliasburg, Athol, Hallowell, Hillier and Murray twps.	*168,011.09	83,492.18	84,518.91	7,212.86
Williamsburg R.P.D.—Matilda and Williamsburg twps.	37,231.25	18,615.63	18,615.62	1,644.46
Total capital	3,326,060.81	1,634,324.39	1,691,736.42	
Non-operating capital	2,832.39	1,416.19	1,416.20	
Totals	3,328,893.20	1,635,740.58	1,693,152.62	183,714.46

NOTE—Items marked * include portions of transmission lines aggregating $22,904.51 used for purposes of rural power districts.

RURAL POWER DISTRICTS *E.O.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment in the year ending October 31, 1934

Distribution costs and fixed charges							Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund	Total cost	Revenue from power and light customers in each district	Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
984.58	801.16	637.46	318.73	170.80	4,839.93	4,636.14	....	203.79
4,930.75	5,256.79	4,163.03	2,081.52	1,120.71	25,378.50	22,629.76	....	2,748.74
15,064.80	8,540.50	6,739.93	3,369.97	1,820.77	50,237.48	48,497.04	....	1,740.44
1,222.01	1,064.61	824.95	412.48	226.97	6,466.45	6,352.72	....	113.73
571.29	487.70	381.89	190.94	103.98	3,427.70	2,863.63	....	564.07
69.83	152.44	123.45	61.73	32.50	617.34	441.41	....	175.93
12,314.15	7,196.02	5,686.28	2,843.14	1,534.14	53,952.12	54,392.16	440.04	....
1,587.31	773.25	626.22	313.11	164.85	4,794.49	2,689.17	....	2,105.32
6,032.50	4,403.10	3,563.63	1,781.81	938.71	32,328.01	32,479.14	151.13	....
2,928.13	1,889.00	1,522.56	761.28	402.72	11,268.40	11,019.91	....	248.49
163.78	193.96	157.67	78.83	41.51	949.77	123.78	....	825.99
5,402.28	3,036.17	2,378.19	1,189.10	647.29	17,834.54	16,910.46	....	924.08
798.50	1,384.81	1,026.42	513.21	295.23	5,502.19	5,050.14	....	452.05
2,857.61	1,876.28	1,515.77	757.89	400.01	13,314.05	13,663.97	349.92	....
25.89	50.50	33.43	16.71	10.76	253.42	295.16	41.74	....
5,315.49	4,139.00	3,331.43	1,665.71	882.40	22,546.89	20,412.85	....	2,134.04
1,925.45	901.98	730.47	365.23	192.30	5,759.89	5,406.84	....	353.05
122,170.71	82,273.43	65,611.42	32,805.71	17,540.50	504,116.23	479,968.71	5,340.51	29,488.03

EASTERN ONTARIO

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Alexandria	Jan., 1921	321.66			321.66
Apple Hill	April, 1921		41.87	41.87	
Athens	Jan., 1929	533.76			533.76
Bath	Nov., 1931	575.67			575.67
Belleville	April, 1929	6,236.38			6,236.38
Bloomfield	April, 1919	195.36			195.36
Bowmanville	Oct., 1931	583.97			583.97
Brighton	Nov., 1929	1,054.58			1,054.58
Brockville	April, 1915	1,915.74			1,915.74
Cardinal	July, 1930		174.99	174.99	
Carleton Place	May, 1919	462.88			462.88
Chesterville	April, 1914	369.37			369.37
Cobourg	Jan., 1932	338.80			338.80
Colborne	Jan., 1933		28.09	28.09	
Deseronto	Jan., 1931		462.71	462.71	
Finch	Feb., 1928	51.29			51.29
Hastings	June, 1931	358.82			358.82
Havelock	Feb., 1921	232.13			232.13
Kemptville	Dec., 1921	406.15			406.15
Lakefield	Aug., 1920	1,119.80			1,119.80
Lanark	Sept., 1921	65.23			65.23
Lancaster	May, 1921		4,527.71		
Lindsay	Mar., 1928	3,174.87			3,174.87
Madoc	Jan., 1930	203.03			203.03
Marmora	Jan., 1921	233.91			233.91
Martintown	May, 1921	130.07			130.07
Maxville	Feb., 1921	109.94			109.94
Napanee	Nov., 1929	1,221.23			1,221.23
Norwood	Feb., 1921		102.35	102.98	0.63
Oshawa	Feb., 1929	6,965.24		133.33	7,098.57
Ottawa	Jan., 1914		1,466.87	1,466.87	
Perth	Feb., 1919	1,588.34			1,588.34
Peterborough	Mar., 1913		3,572.32	3,572.32	
Picton	April, 1919	2,559.15			2,559.15
Port Hope	Nov., 1929	2,437.72			2,437.72
Prescott	Dec., 1913	793.07			793.07
Richmond	Aug., 1928		98.61	98.61	
Russell	Feb., 1926	144.69			144.69
Smiths Falls	Sept., 1918	665.53			665.53
Stirling	Jan., 1930	260.21			260.21
Trenton	Sept., 1931	3,407.89			3,407.89
Tweed	Dec., 1930		590.26	590.26	
Warkworth	Oct., 1923	283.89			283.89
Wellington	April, 1919	448.67			448.67
Westport	Nov., 1931	617.54			617.54
Whitby	Jan., 1926	351.60			351.60
Williamsburg	April, 1915	913.03			913.03

SYSTEM *E.O.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
4.27		967.46		971.73	
	0.80	98.79		97.99	
9.11		658.89		668.00	
8.08		192.12		200.20	
84.27		15,762.55		15,846.82	
3.90		545.70		549.60	
9.86		7,428.27		7,438.13	
21.03		1,422.29		1,443.32	
25.61		9,348.73		9,374.34	
	3.22	843.87		840.65	
9.13		4,981.84		4,990.97	
6.19		302.24		308.43	
7.57		5,714.77		5,722.34	
	0.45	306.24		305.79	
	8.52	588.44		579.92	
1.20		295.15		296.35	
6.14		322.84		328.98	
3.76		339.56		343.32	
6.85		815.48		822.33	
18.79		1,097.92		1,116.71	
1.10		393.74		394.84	
	181.11	62.14			4,646.68
51.84		5,207.13		5,258.97	
3.27		784.43		787.70	
4.49		492.19		496.68	
2.31		99.59		101.90	
1.80		533.03		534.83	
20.74		3,668.04		3,688.78	
	1.58	216.90		215.32	
138.57			6,397.97		6,259.40
	38.74	24,252.53		24,213.79	
27.15		4,894.91		4,922.06	
	61.07	11,802.88		11,741.81	
34.50		1,780.11		1,814.61	
37.94		5,983.09		6,021.03	
16.08		2,439.79		2,455.87	
	1.83	48.07		46.24	
3.20		45.48		48.68	
11.23		6,162.50		6,173.73	
4.48		837.25		841.73	
57.14		10,939.13		10,996.27	
	11.13	754.74		743.61	
4.79		349.84		354.63	
7.52		623.48		631.00	
10.85		504.07		514.92	
5.97		3,451.15		3,457.12	
18.54		1,007.44		1,025.98	

EASTERN ONTARIO

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Winchester	Jan., 1914	569.49			569.49
Totals—Municipalities		41,900.70	11,065.78	6,672.03	42,034.66
RURAL POWER DISTRICTS*					
Alexandria R.P.D.	Dec., 1929		3,256.90	578.27	
Arnprior R.P.D.	Dec., 1930		1,819.52	141.22	
Belleville R.P.D.	Aug., 1927	23,453.54			
Bowmanville R.P.D.	Jan., 1924	684.71			5.86
Brighton R.P.D.	Nov., 1929	71.33			
Brockville R.P.D.	Nov., 1921	944.68		86.99	15.09
Campbellford R.P.D.	Aug., 1924		3,040.67	3,162.30	13.04
Carleton Place R.P.D.	Feb., 1932		75.00	50.03	
Chesterville R.P.D.	Nov., 1921	1,240.93			1.29
Cobourg R.P.D.	Feb., 1927	659.26			
Colborne R.P.D.	Aug., 1925		2,159.29	2,250.30	32.49
Fenelon Falls R.P.D.	July, 1931		1,253.86	1,148.07	
Iroquois R.P.D.	July, 1930	2,541.61		11.21	77.28
Kemptville R.P.D.	Dec., 1930		412.11	139.09	
Kingston R.P.D.	Jan., 1923		15,653.71	16,279.87	41.85
Lakefield R.P.D.	July, 1928		2,977.66	2,666.11	
Lindsay R.P.D.	July, 1930		1,734.08	989.57	6.00
Martintown R.P.D.	Jan., 1922		719.82	748.61	
Maxville R.P.D.	Dec., 1927		1,862.73	1,937.24	440.62
Millbrook R.P.D.	July, 1930		1,673.62	317.89	49.26
Napanee R.P.D.	Nov., 1927		12,493.52	9,022.31	
Nepean R.P.D.	Feb., 1922	3,278.08			
Newcastle R.P.D.	Sept., 1927	1,201.51			
Norwood R.P.D.	Jan., 1929		2,341.01	1,075.65	
Omemee R.P.D.	Jan., 1931		585.30	272.62	
Oshawa R.P.D.	April, 1918	40,063.45			132.00
Perth R.P.D.	Aug., 1931		3,262.45	2,129.11	371.88
Peterborough R.P.D.	Jan., 1927	13,409.51			
Prescott R.P.D.	June, 1922		1,549.61	1,611.59	38.02
Renfrew R.P.D.	Nov., 1930		1,161.14	409.08	
Smiths Falls R.P.D.	May, 1929		6,410.94	6,720.88	13.95
Stirling R.P.D.	Nov., 1929		2,144.57	2,230.35	15.34
Trenton R.P.D.	Jan., 1924	2,132.19			
Warkworth R.P.D.	Nov., 1928	20.42			
Wellington R.P.D.	Nov., 1925		9,234.36	9,603.74	20.36
Williamsburg R.P.D.	Feb., 1923		2,087.40	1,952.14	41.10
Totals—Rural power districts		89,701.22	77,909.27	65,534.24	1,315.43
Totals—Municipalities		41,900.70	11,065.78	6,672.03	42,034.66
Totals		131,601.92	88,975.05	72,206.27	43,350.09

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

SYSTEM *E.O.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
9.17		885.53		894.70	
698.44	308.45	140,252.33	6,397.97	140,622.72	10,906.08
	130.28		885.50		3,694.41
	72.78	119.53			1,631.55
938.14		2,835.70		27,227.38	
27.20		310.77		1,016.82	
2.85		205.26		279.44	
37.61		239.06		1,293.05	
	121.71		852.01		865.13
	3.00		19.65		47.62
49.60			3,168.97		1,879.73
26.37			793.53		107.90
	87.21		1,562.16		1,590.85
	50.15		516.92		672.86
99.67		64.58		2,639.79	
	16.48	193.22			96.28
	627.41		5,577.18		5,620.28
	119.11		1,486.18		1,916.84
	69.36		1,071.25		1,891.12
	28.79	389.56		389.56	
	85.10		964.96		1,416.17
	68.75		203.79		1,677.53
	499.74		2,748.74		6,719.69
131.12			1,740.44	1,668.76	
48.06			113.73	1,135.84	
	93.64		564.07		1,923.07
	23.41		175.93		512.02
1,602.54		440.04		41,974.03	
	131.00		2,105.32		3,741.54
536.38		151.13		14,097.02	
	63.20		248.49		287.73
	46.45		825.99		1,624.50
	256.73		924.08		884.82
	86.19		452.05		467.80
85.29		349.92		2,567.40	
0.82		41.74		62.98	
	370.12		2,134.04		2,155.14
	84.87		353.05		614.28
3,585.65	3,135.48	5,340.51	29,488.03	94,352.27	42,038.86
698.44	308.45	140,252.33	6,397.97	140,622.72	10,906.08
4,284.09	3,443.93	145,592.84	35,886.00	234,974.99	52,944.94

EASTERN ONTARIO SYSTEM

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$4,027,275.64	
Deduct:		
Expenditures to October 31, 1933	884,648.61	
Balance brought forward at October 31, 1933		$3,142,627.03
Added during the year ending October 31, 1934:		
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them	$118,843.16	
Amounts included in the costs of distribution of power within rural power districts	65,611.42	
Provision against equipment employed in respect of contracts with private companies which purchased power, and against equipment in local distribution systems	58,448.81	
Provision against equipment in Campbellford Pulp Mill	1,051.20	
Interest at 4% per annum on the monthly balances at the credit of the account	125,705.08	
		369,659.67
		$3,512,286.70
Deduct:		
Expenditures during the year ending October 31, 1934		21,429.50
Balance carried forward October 31, 1934		$3,490,857.20

EASTERN ONTARIO SYSTEM

Reserve for Obsolescence and Contingencies—October 31, 1934

Balance brought forward at October 31, 1933			$1,131,109.22
Added during the year ending October 31, 1934:			
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them		$36,647.96	
Amount included in the costs of distribution of power within rural power districts		32,805.71	
Provision against equipment employed in respect of contracts with private companies which purchased power, and local distribution systems		15,470.41	
Share of profits on sale of securities in which a portion of the reserve funds of the Commission stood invested		3,304.32	
Interest at 4% per annum on monthly balances at the credit of the account		45,244.37	
			133,472.77
			$1,264,581.99
Deduct:			
Contingencies met with during the year ending October 31, 1934		$15,852.50	
Loss on operation of local gas works	$4,064.39		
Less: Profit from power sold to customers on local electric distribution systems	3,949.11		
		115.28	
Commission's share of foreign exchange paid during the year by the Province of Ontario on the transfer of funds to meet capital retirements, also adjustments in respect of amounts of exchange charged in years 1932 and 1933		36,888.83	
			52,856.61
Note—Above amount is exclusive of exchange on interest coupons.			
Balance carried forward October 31, 1934			$1,211,725.38

EASTERN ONTARIO SYSTEM *E.O.—SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder as part of the cost of power delivered thereto, together with its proportionate share of other Sinking Funds, provided out of other revenues of the system, and interest allowed thereon to October 31, 1934

Municipality	Period of years ending Oct. 31, 1934	Amount
		$ c.
Alexandria	10 years	19,183.90
Apple Hill	10 "	1,883.92
Athens	6 "	2,888.80
Bath	3 "	659.22
Belleville	6 "	73,972.50
Bloomfield	6 "	3,033.08
Bowmanville	3 "	17,224.43
Brighton	5 "	4,882.72
Brockville	14 "	99,600.06
Cardinal	5 "	1,842.06
Carleton Place	10 "	44,659.69
Chesterville	15 "	18,262.73
Cobourg	3 "	12,854.89
Colborne	2 "	754.03
Deseronto	4 "	2,625.67
Finch	7 "	2,086.80
Hastings	4 "	1,161.15
Havelock	6 "	6,524.31
Kemptville	10 "	11,211.40
Lakefield	6 "	5,859.80
Lanark	10 "	3,500.74
Lancaster	10 "	4,670.12
Lindsay	6 "	42,531.42
Madoc	5 "	3,123.48
Marmora	6 "	2,585.75
Martintown	10 "	1,194.97
Maxville	10 "	5,604.74
Napanee	5 "	18,124.41
Norwood	6 "	3,155.66
Oshawa	6 "	225,862.78
Ottawa	19 "	65,541.31
Perth	10 "	38,313.32
Peterborough	6 "	140,270.73
Picton	6 "	24,810.58
Port Hope	5 "	22,519.90
Prescott	15 "	28,195.52
Richmond	7 "	1,143.40
Russell	9 "	3,199.75
Smiths Falls	11 "	57,974.92
Stirling	5 "	3,796.18
Trenton	3 "	23,666.97
Tweed	4 "	3,343.93
Warkworth	6 "	1,796.65
Wellington	6 "	4,748.47
Westport	3 "	1,410.18
Whitby	6 years	24,327.91
Williamsburg	14 "	2,956.47
Winchester	15 "	11,893.11
RURAL POWER DISTRICT*		
Alexandria R.P.D.	5 "	1,420.88
Arnprior R.P.D.	4 "	251.04
Belleville R.P.D.	6 "	9,455.85
Bowmanville R.P.D.	6 "	2,645.25
Brighton	5 "	680.56
Brockville R.P.D.	13 "	12,994.96
Campbellford R.P.D.	6 "	2,398.52
Carleton Place R.P.D.	3 "	13.41
Chesterville R.P.D.	13 "	8,321.59
Cobourg R.P.D.	6 "	10,158.67
Colborne R.P.D.	6 "	3,185.59
Fenelon Falls R.P.D.	4 "	1,287.76
Iroquois R.P.D.	5 "	8,314.16
Kemptville R.P.D.	4 "	508.23
Kingston R.P.D.	6 "	10,582.97
Lakefield R.P.D.	6 "	1,120.38
Lindsay R.P.D.	5 "	700.27
Martintown R.P.D.	13 "	4,856.14
Maxville R.P.D.	7 "	6,962.66
Millbrook R.P.D.	5 "	1,315.91
Napanee R.P.D.	6 "	7,520.56
Nepean R.P.D.	13 "	16,775.39
Newcastle R.P.D.	6 "	2,329.79
Norwood R.P.D.	6 "	1,089.56
Omemee R.P.D.	4 "	146.33
Oshawa R.P.D.	6 "	22,020.56
Perth R.P.D.	4 "	758.73
Peterborough R.P.D.	6 "	15,518.82
Prescott R.P.D.	13 "	6,992.24
Renfrew R.P.D.	4 "	160.94
Smiths Falls R.P.D.	6 "	5,975.16
Stirling R.P.D.	5 "	1,877.92
Trenton R.P.D.	6 "	3,454.90
Warkworth R.P.D.	6 "	113.36
Wellington R.P.D.	6 "	7,103.24
Williamsburg R.P.D.	10 "	1,320.94
Total		1,281,767.77

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*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

EASTERN ONTARIO SYSTEM

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933		$1,064,379.57
Provided in the year ending October 31, 1934:		
By charges included in the cost of power delivered to municipalities and rural power districts	$109,931.07	
By charges included in the costs of distribution of power within rural power districts	17,540.50	
By charges against contracts with private companies which purchased power, and local distribution systems	47,341.45	
Interest at 4% per annum on the amount standing at the credit of the reserve accounts	42,575.18	
		217,388.20
Total		$1,281,767.77

THUNDER BAY

Operating Account for Year

COSTS OF OPERATION AS PROVIDED FOR UNDER THE TERMS OF THE POWER COMMISSION ACT

Costs of operation and maintenance, including the proportion of administrative expenses chargeable to the operation of this system:		
Generation and transmission equipment	$212,459.45	
Rural power districts	3,531.59	
		$215,991.04
Interest (including exchange thereon) on capital investment in:		
Generation and transmission equipment	$909,804.12	
Rural power districts	2,818.50	
		912,622.62
Provision for renewals of:		
Generation and transmission equipment	$158,209.53	
Rural power districts	2,280.75	
		160,490.28
Provision for obsolescence and contingencies in respect of:		
Rural power districts	$1,140.37	
		1,140.37
Provision for sinking fund:		
By charges included in the cost of power delivered to municipalities and rural power districts	$102,657.53	
By charges against contracts with private companies which purchased power	45,065.30	
By charges included in the cost of distribution of power within rural power districts	600.41	
		148,323.24
		$1,438,567.55

SYSTEM

Ending October 31, 1934

REVENUE FOR PERIOD

Amount received from (or billed against) each municipality by the Commission	$951,828.87	
Power sold to private companies	419,443.73	
Amount received from (or billed against) customers in rural power districts	11,793.92	$1,383,066.52
Add:		
Amounts due by certain municipalities, being the difference between the sums received (or billed) at interim rates and the amounts charged—following annual adjustment—in respect of power supplied in the year	$ 53,830.77	
Amounts due by municipalities comprising certain rural power districts, being the difference between the sums received from (or billed against) customers therein and the amounts charged to such districts—following annual adjustment—in respect of power supplied in the year	1,755.58	55,586.35
		$1,438,652.87
Deduct:		
Amount received from (or billed against) a certain municipality at interim monthly rates in excess of the amounts charged—following annual adjustment—in respect of power supplied in the year		85.32
Revenue		$1,438,567.55
		$1,438,567.55

THUNDER BAY

Statement showing the amount to be paid by each Municipality as the Cost—under received by the Commission from each Municipality on account of such cost; pality upon ascertainment (by annual adjustment) of the actual cost

Municipality	Interim rates per horsepower collected by Commission during year		Share of capital cost of system on which interest and fixed charges are payable	Average horsepower supplied in year after correction for power factor	Share of operating	
	To Jan. 1, 1934	To Oct. 31, 1934			Operating, maintenance and administrative expenses	Interest (including exchange)
			$ c.		$ c.	$ c.
Fort William	$21.00 plus transformation charges		3,346,962.47	10,264.2	39,523.01	163,271.74
Port Arthur	$21.00 plus transformation charges		10,449,362.54	32,422.3	120,277.05	509,256.71
Nipigon township	$28.00	$30.00	25,623.21	86.0	919.10	1,252.06
RURAL POWER DISTRICTS						
Fort William R.P.D.—Neebing, Oliver and Paipoonge twps.			28,677.89	80.1	312.10	1,408.62
Port Arthur R.P.D.—Shuniah twp.			13,979.29	35.9	174.68	686.48
Totals—Municipalities			13,821,948.22	42,772.5	160,719.16	673,780.51
Totals—Rural power districts			42,657.18	116.0	486.78	2,095.10
Totals—Companies			4,756,436.41	14,754.5	51,253.51	233,928.51
Grand totals			18,621,041.81	57,643.0	212,459.45	909,804.12

THUNDER BAY SYSTEM—

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged (by annual adjustment) of the actual

Districts and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power delivered to districts as shown in "cost of power" table preceding
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c.	$ c.
Fort William R.P.D.—Neebing, Oliver and Paipoonge twps.	67,649.30	33,824.65	33,824.65	2,112.41
Port Arthur R.P.D.—Shuniah twp.	49,488.54	24,744.27	24,744.27	1,065.47
Totals	117,137.84	58,568.92	58,568.92	3,177.88

SYSTEM *T.B.—COST OF POWER*

the Power Commission Act—of Power supplied to it by the Commission; the amount and the amount remaining to be credited or charged to each Munici- of power supplied to it in the year ending October 31, 1934

costs and fixed charges		Total	Revenue received in excess of cost of power sold to private companies	Total cost of power for year as provided to be paid under Power Commission Act	Amounts received from (or billed against) each municipality by the Commission	Amounts remaining to be credited or charged to each municipality upon ascertainment of the actual cost of power by annual adjustment	
Renewals	Sinking Fund					Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
29,025.91	24,871.86	256,692.52	12,077.82	244,614.70	231,443.57	....	13,171.13
89,843.29	77,270.77	796,647.82	38,151.10	758,496.72	717,837.08	....	40,659.64
210.01	182.93	2,564.10	101.20	2,462.90	2,548.22	85.32	....
264.90	221.04	2,206.66	94.25	2,112.41	2,112.41	see	below
135.62	110.93	1,107.71	42.24	1,065.47	1,065.47	"	"
119,079.21	102,325.56	1,055,904.44	(50,330.12)	1,005,574.32	951,828.87	85.32	53,830.77
400.52	331.97	3,314.37	(136.49)	3,177.88	3,177.88	....	....
38,729.80	45,065.30	368,977.12	50,466.61	419,443.73	419,443.73	....	....
158,209.53	147,722.83	1,428,195.93	....	1,428,195.93	1,374,450.48	85.32	53,830.77

RURAL POWER DISTRICTS *T.B.—RURAL OPERATING*

District, the revenues collected from (or charged to) customers within each District, to the Municipalities comprising certain other Districts upon ascertainment costs in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,721.12	1,622.23	1,312.72	656.36	345.57	7,770.41	7,750.83	....	19.58
1,810.47	1,196.27	968.03	484.01	254.84	5,779.09	4,043.09	....	1,736.00
3,531.59	2,818.50	2,280.75	1,140.37	600.41	13,549.50	11,793.92	....	1,755.58

THUNDER BAY

Statement showing the net Credit or Charge to each Municipality in respect of power made and interest added during the year. Also the net amount Credited ending October 31, 1934, and the accumulated amount standing

Municipality	Date commenced operating	Net credit or charge at October 31, 1933		Cash receipts and payments on account of such credits and charges, also adjustments made during the year	
		Credit	Charge	Credited	Charged
		$ c.	$ c.	$ c.	$ c.
Fort William	Oct., 1926		23,365.27	15,770.75	
Nipigon twp.	Jan., 1925		587.81	706.01	
Port Arthur	Dec., 1910		73,974.37	54,173.32	
RURAL POWER DISTRICTS*					
Fort William R.P.D.	Oct., 1932		1,646.16	1,552.94	16.22
Port Arthur R.P.D.	Jan., 1932		1,719.50	842.00	
Totals			101,293.11	73,045.02	16.22

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

THUNDER BAY SYSTEM

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$1,340,141.96	
Deduct:		
Expenditures to October 31, 1933	14,822.47	
Balance brought forward October 31, 1933		$1,325,319.49
Added during the year ending October 31, 1934:		
Amounts charged to municipalities and rural power districts as part of the cost of power delivered to them	$119,479.73	
Amounts included in the costs of distribution of power within rural power districts	2,280.75	
Provision against equipment employed in respect of contracts with private companies which purchased power	38,729.80	
Minor credits to reserves upon transfer of lines and equipment	3,541.99	
Interest at 4% per annum on monthly balances at the credit of the account	53,012.78	
		217,045.05
		$1,542,364.54
Deduct:		
Expenditures during the year ending October 31, 1934		145.22
Balance carried forward October 31, 1934		$1,542,219.32

SYSTEM *T.B.—CREDIT OR CHARGE*

supplied to it to October 31, 1933, the cash receipts and payments thereon, adjustments or Charged to each Municipality in respect of power supplied in the year as a Credit or Charge to each Municipality at October 31, 1934

Interest at 4% per annum added during the year		Net amount credited or charged in respect of power supplied in the year ending October 31, 1934		Accumulated amount standing as a credit or charge on October 31, 1934	
Credited	Charged	Credited	Charged	Credit	Charge
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	303.79		13,171.13		21,069.44
	15.11	85.32		188.41	
	827.97		40,659.64		61,288.66
	63.48		19.58		192.50
	67.56		1,736.00		2,681.06
	1,277.91	85.32	55,586.35	188.41	85,231.66

THUNDER BAY SYSTEM

Reserve for Obsolescence and Contingencies—October 31, 1934

Balance brought forward October 31, 1933	$715,396.31	
Deduct:		
Cost to the Commission (including provisions for sinking fund $34,794.54 and renewals $35,948.03) of power delivered to private companies under flat rate contracts, in excess of revenue received from them in the year 1933—which excess has now been charged against the Contingency Reserve of the system	41,359.65	
		$674,036.66
Added during the year ending October 31, 1934:		
Amount included in the costs of distribution of power within rural power districts	$1,140.37	
Share of profits realized on sale of securities in which a portion of the reserve funds of the Commission stood invested	1,577.82	
Commission's share of American and Sterling exchange (net credit) on the transfer of funds to New York and London by Province of Ontario to meet capital retirements, inclusive of adjustments of amounts over charged the Commission in years 1932 and 1933	23,962.17	
NOTE—Above amount is exclusive of exchange on interest coupons.		
Interest at 4% per annum on monthly balances at the credit of the account	26,961.47	
		53,641.83
		$727,678.49
Deduct:		
Contingencies met with during the year ending October 31, 1934		14.65
Balance carried forward October 31, 1934		$727,663.84

THUNDER BAY SYSTEM *T-B.—SINKING FUND*

Statement showing Sinking Fund paid by each Municipality in the periods mentioned hereunder as part of the cost of power delivered thereto, together with its proportionate share of other sinking funds provided out of other revenues of the system and interest allowed thereon to October 31, 1934

Municipality	Period of years ending October 31, 1934	Amount
		$ c.
Fort William	8 years	284,329.89
Port Arthur	8 "	963,397.68
Nipigon township	8 "	1,765.75
RURAL POWER DISTRICTS*		
Fort William R.P.D.	3 years	1,286.66
Port Arthur R.P.D.	3 "	773.26
Total		1,251,553.24

*For townships included in rural power districts see "Cost of Power" and "Rural Operating" statements preceding.

MANITOULIN ISLAND

Statement showing the costs of distribution of power within Rural Power District, amount remaining to be charged to the Municipalities comprising costs in the year ending

District and municipalities comprised therein	Total capital cost of the district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			
	Total capital cost	Government grant	Commission's investment	Cost of power purchased
	$ c.	$ c.	$ c.	$ c.
ManitoulinR.P.D.—Billings, Carnarvon and Gordon and Allan twps., Town of Gore Bay and Indian Reserve	64,933.41	29,460.55	35,472.86	3,750.00

THUNDER BAY SYSTEM

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933	$1,063,953.45	
Deduct:		
Adjustments in respect of previous years' assessments	3,155.37	$1,060,798.08
Provided in the year ending October 31, 1934:		
By charges included in the cost of power delivered to municipalities and rural power districts	$102,657.53	
By charges included in the costs of distribution of power within rural power districts	600.41	
By charges against contracts with private companies which purchased power	45,065.30	
Interest at 4% per annum on amounts standing at the credit of the reserve accounts	42,431.92	190,755.16
Total		$1,251,553.24

RURAL POWER DISTRICT *MANITOULIN—RURAL OPERATING*

the revenues collected from (or charged to) customers within the District, and the this District upon ascertainment (by annual adjustment) of the actual October 31, 1934

Distribution costs and fixed charges							
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund	Total cost	Revenue from power and light customers in the district	Amount remaining to be charged to the municipalities comprising the district Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,313.61	1,888.53	1,288.67	644.33	373.52	10,258.66	8,235.38	2,023.28

MANITOULIN ISLAND

Statement showing the net charge to Manitoulin Rural Power District in respect net amount charged this Rural Power District in respect of power supplied as a charge at

Rural power district	Date commenced operating	Net charge at October 31, 1933	Cash receipts and payments on account of such charges, also adjustments made during the year
		Charge	Credited
		$ c.	$ c.
Manitoulin R.P.D.—Billings, Carnarvon & Gordon & Allan twps. Town of Gore Bay and Indian Reserve	Dec., 1932	1,383.84	515.41

MANITOULIN ISLAND RURAL POWER DISTRICT

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933		$996.29
Provided in the year ending October 31, 1934	$1,288.67	
Minor credit on the purchase of lines and equipment	1,287.00	
Interest at 4% per annum on monthly balances at the credit of the account	39.85	
		2,615.52
		$3,611.81
Deduct:		
Expenditures during the year ending October 31, 1934		204.46
Balance carried forward October 31, 1934		$3,407.35

RURAL POWER DISTRICT *MANITOULIN—CREDIT OR CHARGE*

of power supplied to it to October 31, 1933, interest added during the year; also the in the year ending October 31, 1934, and the accumulated amount standing October 31, 1934

Interest at 4% per annum added during the year	Net amount charged in respect of power supplied in the year ending October 31, 1934	Accumulated amount standing as a charge on October 31, 1934
Charged	Charged	Charge
$ c.	$ c.	$ c.
55.74	2,023.28	2,947.45

MANITOULIN ISLAND RURAL POWER DISTRICT

Reserve for Obsolescence and Contingencies—October 31, 1934

Total provision for contingencies to October 31, 1933		$476.90
Provided in the year ending October 31, 1934	$644.33	
Interest at 4% per annum on monthly balances at the credit of the account	19.08	
		663.41
		$1,140.31
Deduct:		
Commission's share of American and Sterling exchange paid by Province of Ontario on the transfer of funds to New York and London to meet capital retirements		22.42
NOTE—Above amount is exclusive of American exchange on interest coupons.		
Balance carried forward October 31, 1934		$1,117.89

MANITOULIN ISLAND RURAL POWER DISTRICT

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933	$285.45
Provided in the year ending October 31, 1934	373.52
Interest at 4% per annum on monthly balances at the credit of the account	11.42
	$670.39

NORTHERN ONTARIO
EMBRACING THE NIPISSING, WAHNAPITAE, ABITIBI-SUDBURY,
Operating Account for the

Costs of Operation

Power purchased:		
For Abitibi-Sudbury district (temporary)	$3,426.18	
For Nipissing district (temporary)	39.31	
For Espanola district	2,989.69	
		$6,455.18
Costs of operation and maintenance, including the proportion of administrative expenses of the Commission, chargeable to the operation of these properties:		
Nipissing district	$95,276.04	
Wahnapitae district	97,342.09	
Abitibi-Sudbury district	196,013.97	
Patricia district	21,234.45	
Espanola district	168.47	
		410,035.02
Interest on capital investment in generation and transmission equipment in:		
Nipissing district	$78,015.43	
Wahnapitae district	128,530.92	
Abitibi-Sudbury district	708,476.00	
Patricia district	23,910.17	
Espanola district	333.33	
		939,265.85
Provision for renewal of generation and transmission equipment (at rates established by engineers of the Commission):		
Nipissing district	$21,337.90	
Wahnapitae district	27,113.65	
Abitibi-Sudbury district	133,193.37	
Patricia district	7,253.12	
Espanola district	100.00	
		188,998.04
Provision for obsolescence and contingencies in respect of generation and transmission equipment in:		
Nipissing district	$8,399.80	
Wahnapitae district	18,075.77	
Patricia district	4,835.41	
Abitibi-Sudbury district	....	
Espanola district	....	
		31,310.98
		$1,576,065.07

NORTHERN ONTARIO PROPERTIES
Embracing the Nipissing, Wahnapitae, Abitibi-Sudbury, Patricia, (Ear Falls) and Espanola Districts
Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$470,542.34	
Deduct expenditures to October 31, 1933	56,863.24	
Amount of reserves to October 31, 1933		$413,679.10
Added during the year ending October 31, 1934:		
Provision against equipment employed in respect of contracts with private companies which purchased power and against local distribution systems	$188,998.04	
Minor credits to reserves on transfers of equipment	3,676.53	
Interest at 4% per annum on monthly balances at the credit of the account	16,663.96	
		209,338.53
		$623,017.63
Deduct:		
Expenditures during the year ending October 31, 1934		7,831.14
Balance carried forward October 31, 1934		$615,186.49

PROPERTIES
PATRICIA (EAR FALLS) AND ESPANOLA DISTRICTS
Year Ending October 31, 1934

REVENUE FOR PERIOD

Power sold to private companies and customers in the following districts:	
Nipissing district	$236,866.72
Wahnapitae district	362,539.55
Abitibi-Sudbury district	562,549.31
Patricia district	67,257.33
Espanola district	4,698.42
Power supplied to rural power districts within the Nipissing district	4,399.67
	$1,238,311.00
Net operating shortage for year	337,754.07
	$1,576,065.07

NORTHERN ONTARIO PROPERTIES
Embracing the Nipissing, Wahnapitae, Abitibi-Sudbury, Patricia, (Ear Falls) and Espanola Districts
Reserve for Obsolescence and Contingencies—October 31, 1934

Total provision for contingencies to October 31, 1933		$211,603.46
Added during the year ending October 31, 1934	$31,310.98	
Share of profits realized on sale of securities in which a portion of the reserve funds of the Commission stood invested	483.45	
Commission's share of American and Sterling exchange (net credit) on the transfer of funds to New York and London by Province of Ontario to meet capital retirements, inclusive of adjustments of amounts overcharged the Commission in years 1932 and 1933 NOTE—Above amount is exclusive of exchange on interest coupons.	6,323.80	
Interest at 4% per annum on monthly balances at the credit of the account	8,464.13	
		46,582.36
		$258,185.82
Deduct:		
Contingencies met with during the year ending October 31, 1934		4,763.43
Balance carried forward October 31, 1934		$253,422.39

NORTHERN ONTARIO

NIPISSING RURAL

Statement showing the costs of distribution of power within each Rural Power and the amounts remaining to be credited to certain Districts or charged to annual adjustment) of the actual costs

District and municipalities comprised therein	Total capital cost of each district, Provincial Government grant received and applied thereagainst, and the balance representing the investment by the Commission			Cost of power
	Total capital cost	Government grant	Commission's investment	
	$ c.	$ c.	$ c	$ c.
North Bay R.P.D.—West Ferris and Widdifield twps.	39,420.30	19,338.28	20,082.02	4,288.96
Powassan R.P.D.—Himsworth S. twp.	5,338.37	2,669.18	2,669.19	110.71
Totals	44,758.67	22,007.46	22,751.21	4,399.67

NORTHERN ONTARIO

NIPISSING RURAL

Statement showing the net Credit to each Municipality in respect of power supplied Credited to each Municipality in respect of power supplied in the year to each Municipality

Rural power district	Date commenced operating	Net credit at October 31, 1933
		Credit
		$ c.
North Bay R.P.D.—West Ferris and Widdifield twps.	June, 1927	8,875.35
Powassan R.P.D.—Himsworth S. twp.	Nov., 1931	112.40
Totals		8,987.75

PROPERTIES

POWER DISTRICTS *NIPISSING RURAL—OPERATING*

District, the revenues collected from (or charged to) customers within each District, the Municipalities comprising certain other Districts upon ascertainment (by in the year ending October 31, 1934

Distribution costs and fixed charges					Total cost	Revenue from power and light customers in each district	Amounts remaining to be credited to certain districts or charged to the municipalities comprising certain other districts	
Cost of operation, maintenance and administration	Interest (including exchange)	Renewal charges	Obsolescence and contingencies	Sinking fund			Credited	Charged
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,858.38	874.89	734.85	367.42	197.36	8,321.86	9,089.11	767.25	....
155.57	123.44	105.29	52.65	27.72	575.38	636.83	61.45	....
2,013.95	998.33	840.14	420.07	225.08	8,897.24	9,725.94	828.70	....

PROPERTIES

POWER DISTRICTS *NIPISSING RURAL—CREDIT OR CHARGE*

to it to October 31, 1933, the interest added during the year; also the net amount ending October 31, 1934, and the accumulated amount standing as a Credit at October 31, 1934

Interest at 4% per annum added during the year	Net amount credited in respect of power supplied in the year ending October 31, 1934	Accumulated amount standing as a credit on October 31, 1934
Credited	Credited	Credit
$ c.	$ c.	$ c.
355.01	767.25	9,997.61
4.50	61.45	178.35
359.51	828.70	10,175.96

NORTHERN ONTARIO

NIPISSING RURAL POWER DISTRICTS

Reserve for Renewals

Total provision for renewals to October 31, 1933	$3,800.33
Added during the year ending October 31, 1934	840.14
Interest at 4% per annum on monthly balances at the credit of the account	152.01
Balance carried forward October 31, 1934	$4,792.48

NIPISSING RURAL POWER DISTRICTS

Statement showing Sinking Fund paid by each Rural Power District in the periods mentioned hereunder, as part of the cost of power delivered thereto and interest allowed thereon to October 31, 1934

Rural power district	Period of years ending October 31, 1934	Amount
		$ c.
North Bay R.P.D.—West Ferris and Widdifield twps.	5 years	857.51
Powassan R.P.D.—Himsworth S. twp.	3 "	77.64
Total		935.15

ACCOUNT WITH THE PROVINCIAL TREASURER—NIAGARA AND

April 30, 1934	Cash returned to the Province in the year ending October 31, 1934 to cover the difference between advances by the Province to the Commission and the capital expenditures made out of such advances by the Commission in the year ending October 31, 1933		$342,118.80
April 30, 1934	Paid on account of interest and exchange	$5,000,000.00	
Oct. 31, 1934	Cheque to cover balance of interest and exchange for year ending October 31, 1934	4,800,449.85	
			9,800,449.85
Oct. 31, 1934	Payment under debt retirement plan		2,412,398.33
Oct. 31, 1934	Balance carried down		187,829,243.28
			$200,384,210.26

PROPERTIES

NIPISSING RURAL POWER DISTRICTS

Reserve for Obsolescence and Contingencies

Total provision for contingencies to October 31, 1933	$1,317.98
Added during the year ending October 31, 1934	420.07
Interest at 4% per annum on monthly balances at the credit of the account	52.72
Balance carried forward October 31, 1934	$1,790.77

NIPISSING RURAL POWER DISTRICTS

Reserve for Sinking Fund

Total provision for sinking fund to October 31, 1933	$682.76
Added during the year ending October 31, 1934	225.08
Interest at 4% per annum on monthly balances at the credit of the account	27.31
Total	$935.15

OTHER SYSTEMS—FOR THE YEAR ENDING OCTOBER 31, 1934

Oct. 31, 1933	Cash advances to date for the purposes of Niagara and other power systems	$204,973,166.14	
	Less repayments to that date under debt retirement plan	17,008,616.73	
			$187,964,549.41
Nov. 1, 1933 to Oct. 31, 1934	Sundry cash advances		2,619,211.00
Oct. 31, 1934	Interest for year on all cash advances	$10,510,971.95	
Oct. 31, 1934	Commission's share of exchange paid during the year by the Province of Ontario on the transfer of funds to New York and London to meet interest and capital retirements	329,363.09	
		$10,840,335.04	
	Deduct:		
	Amounts overcharged in respect of foreign exchange in the two years ending October 31, 1932 and 1933	203,726.70	
		$10,636,608.34	
	Less—Interest credited by Province on repayments made by Commission	836,158.29	9,800,449.85
			$200,384,210.26
Nov. 1, 1934	Total cash advances		$207,250,258.34
	Less—Payments made under debt retirement plan		19,421,015.06
			$187,829,243.28

GUELPH

Operating Account for

EXPENDITURES

Transportation expense	$24,035.03	
Maintenance—way and structures	6,400.22	
Maintenance—equipment	14,718.57	
Electric power and motor fuel	10,763.84	
General operating and management expenses, including a proportion of administrative and accounting expenses of the Commission chargeable to the operation of the railway	9,465.24	
Insurance	3,764.20	
Taxes	256.85	
		$69,403.95
Interest—net		13,393.35
Provision for instalments payable to the City of Guelph on May 1, 1934, and November 1, 1934, under purchase agreement:		
Interest for year	$2,969.35	
On account of principal	8,730.65	
		11,700.00
Provision for sinking fund		3,159.00
		$97,656.30

GUELPH RADIAL RAILWAY

Reserve for Renewals—October 31, 1934

Total provision for renewals to October 31, 1933	$57,030.74	
Deduct:		
Expenditures to October 31, 1933	25,557.76	
Balance brought forward October 31, 1933		$31,472.98
Added during the year ending October 31, 1934:		
Interest at 4% on the monthly balances at the credit of the account		1,252.10
		$32,725.08
Deduct:		
Expenditures during the year ending October 31, 1934		227.43
Balance carried forward October 31, 1934		$32,497.65

RADIAL RAILWAY

the Year Ending October 31, 1934

Revenue

Operating revenue	$65,048.91
Net deficit for year after provision for instalments on account of principal and interest payable to the City of Guelph, under the purchase agreement, but before making provision for renewal of road and equipment	32,607.39
	$97,656.30

GUELPH RADIAL RAILWAY

Reserve for Sinking Fund—October 31, 1934

Total provision for sinking fund to October 31, 1933	$8,152.75
Provided in the year ending October 31, 1934	3,159.00
Interest at 4% on the monthly balances at the credit of the account	326.11
Balance carried forward October 31, 1934	$11,637.86

THE HAMILTON STREET

A Subsidiary of the Hydro-Electric

Balance Sheet—

ASSETS

Properties, road, equipment, motor buses, franchises, etc., as shown in the books of the Company		$4,773,862.68	
Less—Reserves for renewal—			
Of properties, road and equipment	$676,545.60		
Of motor buses	187,536.34		
		864,081.94	
			$3,909,780.74
Expenditures by Company in respect of T. H. & B. subway at James Street—carried forward pending final allocation of total cost of subway by Dominion Railway Board			20,932.78
Materials and supplies			45,596.47
Cash in bank		$7,296.32	
Cash in hands of conductors and other employees		11,170.00	
			18,466.32
Accounts receivable, less reserve for doubtful accounts			7,993.38
Taxes, insurance and expenses prepaid			5,426.62
			$4,008,196.31

THE HAMILTON STREET

A Subsidiary of the Hydro-Electric

Statement of Revenue and Expenditure—

EXPENDITURE

Transportation expenses	$306,220.83
Maintenance—way and structures	51,556.92
Maintenance of equipment	91,759.40
Power and motor fuel	175,530.70
General operating and management expenses, including a proportion of administrative and accounting expenses of the Commission chargeable to the operation of the railway	69,035.75
Provision for renewals of motor buses	1,950.00
Taxes (including franchise tax)	58,172.50
Insurance—fire, accident and liability	39,322.78
Total operating expenses	$793,548.88
Profit for year, before provision for renewal of road and equipment other than motor buses	25,731.60
	$819,280.48

RAILWAY COMPANY

Power Commission of Ontario

October 31, 1934

LIABILITIES

Capital stock:		
Issued—64,100 shares of a par value of $50.00 each		$3,205,000.00
Capital surplus—Created by advances to the Company by Dominion Power and Transmission Company, Limited prior to 31st December, 1929		488,846.85
		$3,693,846.85
Profit and loss account at October 31, 1933	$17,961.24	
Less—Charges thereagainst in the last fiscal year	4,067.38	
		13,893.86
Hydro-Electric Power Commission of Ontario—		
Cash advances		257,306.71
Accounts payable and accrued charges		31,749.04
Reserve for public liability insurance		1,399.85
Reserve for outstanding tickets		10,000.00
Contingent liability—		
Share of cost of T. H. & B. subway at James Street expected to be found payable by Company upon final allocation of total cost of subway by Dominion Railway Board.		
		$4,008,196.31

RAILWAY COMPANY

Power Commission of Ontario

For the Year Ending October 31, 1934

REVENUE

Passenger	$809,694.20
Freight and express	3,979.76
Miscellaneous	5,606.52
Total revenue	$819,280.48
	$819,280.48

NOTE:

Interest on Commission's advances to, and investment in capital stock of the Hamilton Street Railway Company	$156,907.79
in excess of profit for year (before provision for renewal of road and equipment other than motor buses) from operation of the street railway	25,731.60
a balance of	131,176.19
has been charged to the contingency reserve of the Niagara system.	

APPROPRIATIONS, ADVANCES AND CAPITAL EXPENDITURES

For the Year Ending October 31, 1934

Appropriations made by the Legislature for the purposes of the Commission, Cash Advances by the Province to the Commission on account of such Appropriations, and the Capital Expenditures made on each Undertaking and System by the Commission out of such Cash Advances in the Year Ending October 31, 1934

NIAGARA SYSTEM

Appropriations by Legislature and by Treasury Board Minute:			
For power developments (including Chats Falls)		$175,000.00	
For transformer and distributing stations		200,000.00	
For transmission lines and rural distribution systems		490,500.00	
		$865,500.00	
Cash advances to the Commission out of such appropriations and Treasury Board Minute		$556,500.00	
Unexpended balance as at October 31, 1934 returnable to Province		56,318.71	
			$500,181.29
Capital expenditure by the Commission:			
On Chats Falls development		$29,373.17	
On steam plant (Hamilton)		396.29	
On steel-tower lines		146,847.62	
On wood pole lines		67,770.33	
On transformer stations		50,663.63	
On Eastern transformer stations		17,973.30	
On Eastern right-of-way		28,398.55	
On rural power districts		175,986.15	
On local distribution systems		3,695.24	
		$521,104.28	
On Ontario Power development—Receipts in excess of expenditures	$2,873.69		
On Toronto Power development—Receipts in excess of expenditures	40.00		
On DeCew development—Receipts in excess of expenditures	864.13		
On Queenston-Chippawa development—Receipts in excess of expenditures	9,714.46		
On right-of-way—Receipts in excess of expenditures	6,392.21		
On Eastern transmission lines—Receipts in excess of expenditures	1,038.50		
		20,922.99	
			$500,181.29

GEORGIAN BAY SYSTEM

Appropriations by Legislature		$180,000.00	
Cash advances to the Commission out of such appropriations		$48,000.00	
Unexpended balance as at October 31, 1934, returnable to the Province		15,366.48	
			$32,633.52
Capital expenditure by the Commission:			
On rural power districts		$51,248.15	
On local distribution systems		2,154.32	
		$53,402.47	
On power development—Receipts in excess of expenditures	$2,542.47		
On transformer stations—Receipts in excess of expenditures	3,046.61		
On transmission lines—Receipts in excess of expenditures	15,179.87		
		20,768.95	
			$32,633.52

EASTERN ONTARIO SYSTEM

Appropriations by Legislature and by Treasury Board Minute		$629,550.00	
Cash advances to the Commission out of such appropriations and Treasury Board Minute		$570,000.00	
Unexpended balance as at October 31, 1934 returnable to the Province		91,211.32	
			$478,788.68
Capital expenditure by the Commission:			
On power developments		$2,708.35	
On transmission lines		332,582.04	
On transformer stations		93,836.72	
On rural power districts		48,116.27	
On local distribution systems:			
Electric	$1,216.98		
Gas—Receipts in excess of expenditures	68.54		
		1,148.44	
On rural lines		396.86	
			$478,788.68

THUNDER BAY SYSTEM

Appropriations by Legislature and by Treasury Board Minute		$63,000.00	
Cash advances to the Commission out of such appropriations and Treasury Board Minute	$52,607.00		
Deduct—Capital expenditures in the year ending October 31, 1933 in excess of cash advances by the Province	1,033.67		
		$51,573.33	
Unexpended balance as at October 31, 1934 returnable to the Province		2,734.78	
			$48,838.55
Capital expenditure by the Commission:			
On power developments		$3,915.46	
On transmission lines		3,688.21	
On transformer stations		36,604.97	
On rural power districts		4,629.91	
			$48,838.55

NORTHERN ONTARIO PROPERTIES
(Other than Abitibi Canyon Development separately shown)
AND
MANITOULIN RURAL POWER DISTRICT

Appropriations by Legislature, by Special Warrant and by Treasury Board Minute		$1,299,847.00	
Cash advances to the Commission out of such appropriations, Special Warrants and Treasury Board Minute	$1,244,104.00		
Deduct—Capital expenditures in the year ending October 31, 1933 in excess of cash advances by the Province	3,723.72		
		$1,240,380.28	
Unexpended balance as at October 31, 1934 returnable to the Province		76,283.16	
			$1,164,097.12
Capital expenditure by the Commission:			
On transmission lines—Nipissing district	$903.85		
On transformer stations—Nipissing district	643.86		
On rural power districts—Nipissing district	3,118.98		
On local distribution systems—Nipissing district	17,039.85		
	$21,706.54		
On power developments—Nipissing district Receipts in excess of expenditures	1,194.07		
		$20,512.47	
Carried forward		$20,512.47	

NORTHERN ONTARIO PROPERTIES
(Other than Abitibi Canyon Development separately shown)
AND
MANITOULIN RURAL POWER DISTRICT—Continued

Brought forward		$20,512.47	
On transformer stations—Abitibi-Sudbury district	$499,561.79		
On transmission lines—Abitibi-Sudbury district	501,077.28		
		1,000,639.07	
On power development—Patricia (Ear Falls) district		4,284.82	
On power development—St. Josephs district	$91,293.44		
On transmission lines—St. Josephs district	50,977.16		
		142,270.60	
On transmission line—Espanola district		1,928.33	
		$1,169,635.29	
On power developments—Wahnapitae district—Receipts in excess of expenditures	$10,018.30		
On transformer stations—Wahnapitae district	1,633.06		
		8,385.24	
		$1,161,250.05	
Capital expenditure by the Commission on Manitoulin rural power district		2,847.07	
			$1,164,097.12

ABITIBI CANYON DEVELOPMENT

Appropriations by Special Warrant		$232,400.00	
Cash advances to the Commission out of such appropriations		Nil	
Capital expenditure by the Commission during the year ended October 31, 1934 out of funds turned over to it by the Receiver for the bondholders of Ontario Power Service Corporation Limited:			
Towards completion of the development, less certain amounts recovered from material salvaged and sold		$132,315.36	
Expenditures incidental to the purchase of the properties—professional fees, etc.		11,714.71	
In settlement of contractors' and other claims, together with interest thereon to October 31, 1933, and including expenses incidental thereto		$184,945.37	
		$328,975.44	
Less:			
Cost of certain transformers transferred during year to transformer stations, Abitibi-Sudbury district	$134,300.00		
Cost of insulators transferred to Eastern Ontario system transformer stations	684.50		
Cost of certain office furniture transferred to office furniture account of Commission	1,523.91		
		136,508.41	
			$192,467.03

MISCELLANEOUS

Appropriations by Legislature and by Treasury Board Minute		$148,000.00	
Cash advances to the Commission out of such appropriations and Treasury Board Minute		$148,000.00	
Unexpended balance as at October 31, 1934 returnable to the Province		5,593.53	
			$142,406.47
Capital expenditure by the Commission:			
On new administration building		$140,327.57	
On service building and equipment		2,078.90	
			$142,406.47

RURAL POWER DISTRICTS—SUMMARY

Statement showing the Total Capital Expenditures to October 31, 1934 on the construction of Primary and Secondary lines in Rural Power Districts; the portion thereof in course of construction; the investment in lines in operation; the amounts of the Grants (fifty per cent of both Primary and Secondary lines) payable to the Commission by the Province of Ontario; also the extents to which Grants stand authorized by Orders-in-Council under the Rural Hydro-Electric Distribution Act, and the amounts of such Grants paid over by the Province to the Commission under such authorization up to October 31, 1934

System	Total capital expenditure	In course of construction	In operation	*Grants (50% of primary and secondary lines) payable by the Province	Extents to which grants stand authorized by orders-in-council	Grants paid by Province to Commission under such authorizations
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Niagara system	13,190,128.61	23,662.95	13,166,465.66	6,552,304.47	7,439,432.44	6,549,825.66
Georgian Bay system	1,589,662.16	4,290.29	1,585,371.87	755,997.57	872,658.99	755,997.57
Thunder Bay system	117,137.84		117,137.84	58,568.92	71,685.50	58,568.92
Manitoulin district	59,835.30		59,835.30	29,460.55	31,806.50	29,460.55
Nipissing district	44,758.67		44,758.67	22,007.46	23,659.50	22,007.46
Eastern Ontario system including Ottawa and Madawaska districts	3,305,988.69	2,832.39	3,303,156.30	1,635,740.58	1,854,027.65	1,635,518.16
Totals	18,307,511.27	30,785.63	18,276,725.64	9,054,079.55	10,293,270.58	9,051,378.32
Additional sum authorized by above Orders-in-Council and paid over to the Commission but not allocated as between rural power districts						33,729.78
						9,085,108.10

NOTE:—

The cash paid over by the Province to the Commission up to October 31, 1934 on account of authorized grants to rural power districts—as above set out—amounts to	$9,085,108.10	
The Grants payable by the Province—as above set out—in respect of rural power districts as at October 31, 1934, amount in the aggregate to	9,054,079.55	
A balance of		$31,028.55
Which balance represents:		
(a) Grant funds in the hands of the Commission at October 31, 1934, not allocated but to apply against the construction of authorized rural power districts and extension to existing districts	$33,729.78	
Less:		
(b) Grants (or balance thereof) payable by the Province to the Commission in respect of certain rural power districts completed, or under construction	2,701.23	
		$31,028.55

NOTE:—*Grants not made by Province in respect of a summer resort, street lighting systems in 62 districts, service buildings in 2 districts and amounts paid for business already established in 9 rural distribution systems purchased from private companies.

SECTION X

MUNICIPAL ACCOUNTS

And Statistical Data Relating to Hydro-Electric Distribution Systems Operated by Individual Municipalities Served by The Hydro-Electric Power Commission of Ontario

The Municipal Accounts section of this report presents in summary, and individually, the results of the operation of the local electrical utilities in municipalities owning their own distributing systems and operating with energy supplied by or through the Hydro-Electric Power Commission.

Financial statements prepared from the books of these "Hydro" utilities are submitted herein to show how each has operated during the past year, and its financial status at the present time. Other tables give useful statistical information respecting average costs for the various classes of service and the rates in force.

The books of account of the electrical utilities in all municipalities which have contracted with The Hydro-Electric Power Commission of Ontario for a supply of power are kept in accordance with an accounting system designed by the Commission.

Periodical inspections are made of the books of all "Hydro" electrical utilities and local officials are assisted in the improvement of their office routine with a view to standardizing, as far as possible, the methods employed. In the majority of the smaller municipalities much of the bookkeeping for the electrical utilities is performed by representatives of the municipal accounting department of the Commission as a measure of economy. This arrangement insures the correct application of the standard accounting system, with resultant uniformity in classification of revenues and expenditures; secures true reflections of the actual operating results for the year, and greatly enhances the comparative values of the reports.

The first financial statement in this section presents consolidated balance sheets for each year since 1912, and thus shows the march of progress. It combines the balance sheets of the local municipal utilities of all the systems.

It is worth noting that the total plant value has increased from $10,081,469.16 in 1913 to $91,675,564.93 in 1934, and the total assets from $11,907,826.86 to $140,111,145.54. The liabilities have not increased in the same proportion as the assets, rising from $10,468,351.79 to $46,608,590.26. The reasons for this are the regular fulfilment of debt retirement schedules under serial debenture provisions or by maturity of sinking funds, and also the fact that much of the cost of the increasing plant value has been financed out of reserves and surplus without increasing the capital liabilities of the respective utilities. By this procedure the funds of the systems are used to best advantage. Examination of the results will also show that there is a steady decline in the percentage of net liabilities to total assets; being from 88.0 per cent in 1913 to 35.9 per cent in 1934. The equities in the Hydro-Electric Power Commission's systems automatically acquired through the inclusion of sinking funds as part of the cost of power are not taken into account in arriving at these percentages.

The second financial statement presents consolidated operating reports for each year since "Hydro" service was inaugurated and combines the results from the local municipal utilities of all the systems. After providing for every cost of operation and fixed charges, including the standard provision for depreciation, the combined operating reports show a net surplus of $685,489.13 for 1934.

The five statements, "A" to "E," following the two consolidated reports show the financial status of each municipal utility and the results of operations, giving classified information respecting revenue, operating costs, number of consumers and consumption, cost of power to municipalities, power and lighting rates charged to consumers, etc. In statements "A" and "B," the municipalities are arranged alphabetically under each system; in statement "D" the municipalities are arranged in three groups—cities, towns and small municipalities; in statements "C" and "E" all municipalities are arranged alphabetically.

Statement "A" presents the balance sheet of each electrical utility. The plant values are shown under the general subdivisions specified in the standard accounting system and the other items on the positive side of the ledger which are included in total assets are self-explanatory with the exception, perhaps, of the item entitled "equity in H-E.P.C. systems." The sinking fund portion of the cost paid year by year to the Commission for power is for the purpose of ultimately retiring the capital liabilities incurred by the Commission on behalf of the municipalities. A municipality's aggregate equity in the Commission's systems at any time is the total of the sinking fund payments that have been credited to it, together with interest. The total sinking fund equity acquired by these municipalities to the end of 1934 is shown in the consolidated balance sheet to be $29,274,340.46.

In conformity with a policy of service at cost to the customer, refunds by cash or credit were made during the year in many municipalities from surplus funds accrued to the credit of municipal services, such as street lighting, water works, sewage disposal, etc., and to individual customers. The amounts of the accumulated surpluses rebated equalled, in different municipalities, from five per cent to twenty-five per cent of the previous year's revenue. The total thus returned to customers during the year 1934 amounted in round figures to $185,000.00.

In each case the balance sheet includes the credit or charge representing the difference between the monthly payments for power at interim rates and the cost of power as ascertained by the Commission upon annual adjustment.

The reserves for depreciation, and the acquired equity in the Hydro-Electric Power Commission's systems, are listed individually and totalled; and under the heading "surplus" are included not only the free operating surplus but the accumulation of sinking fund applicable to debenture debt and also the amount of debentures already retired out of revenue.

The depreciation reserve now amounts to 21.4 per cent of the total depreciable plant, while the depreciation reserve and surplus combined have already reached the sum of $62,171,394.01, approximately 67.8 per cent of the total plant cost.

Statement "B" shows detailed operating reports for each municipal electrical utility. It gives annual revenues from the various classes of consumers; the items of expenditure which make up the total annual expenditure and the sums set aside for depreciation. The population served by each local utility, and the number of consumers of each class are also shown.

The item "power purchased" in this statement includes the debit or credit balances ascertained by the annual adjustment of the cost of power supplied to the municipalities by the Commission.

Of the 282 municipal electric utilities included in this statement, 215 received from consumers revenue sufficient to meet in full all operating expenses, interest, debt retirement instalments, and standard depreciation reserve allocation and to yield an aggregate net surplus of $765,656.13 for the year; 54 were able to defray out of revenue all such charges except a portion of the standard depreciation allocation aggregating $71,776.01; in the case of 13 utilities the revenue was less than the total of operating expenses, interest and debt retirement instalments by $3,685.99.

Statement "C" shows the installation of street lights in each municipality together with the rates approved by this Commission, the revenue for 1934 and the cost per capita in each municipality.

Statement "D" presents statistics relating to the supply of electrical energy to consumers in Ontario municipalities served by the Commission. It shows the revenue, kilowatt-hour consumption, number of consumers, average monthly consumption, average monthly bill and the net average cost per kilowatt-hour both for domestic and for commercial light service in each municipality. For power service this statement shows the revenue, the number of consumers and the average horsepower supplied by the municipal utility.* For further reference to this informative statement, consult the special introduction to it on page 402.

Statement "E" presents the cost per horsepower of the power provided for and delivered to the municipalities by the Commission, and the local rates to consumers in force in the respective municipalities, during the year 1934, for domestic service, for commercial light service and for power service.

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*The statistics include retail power only. Wholesale industrial power as supplied by the Commission direct, is reported in Section IX.

CONSOLIDATED

YEAR	1913	1914	1915
Number of municipalities included	45	69	99
ASSETS	$ c.	$ c.	$ c.
Lands and buildings	626,707.34	791,732.20	873,838.18
Substation equipment	1,090,875.69	1,476,087.84	1,582,062.56
Distribution system—overhead	2,690,834.74	3,422,763.93	4,234,626.05
Distribution system—underground	644,514.24	807,153.53	928,420.77
Line transformers	615,546.20	787,613.52	981,754.70
Meters	840,606.64	1,172,475.11	1,418,165.08
Street lighting equipment—regular	900,614.80	1,071,255.37	1,309,628.49
Street lighting equipment–ornamental	62,765.34	270,386.55	197,644.82
Miscellaneous construction expenses	866,551.89	2,062,035.90	1,701,182.66
Steam or hydraulic plant	1,401,175.28	420,108.33	461,651.60
Old plant	341,277.00	619,513.12	1,184,372.86
Total plant	10,081,469.16	12,901,125.40	14,873,347.77
Bank and cash balance	450,887.97	422,350.12	284,653.96
Securities and investments			
Accounts receivable	344,487.95	561,873.08	602,920.69
Inventories	540,274.58	615,226.76	726,556.76
Sinking fund on local debentures	431,747.27	625,217.03	868,983.78
Equity in H-E.P.C. systems			
Other assets	58,959.93	123,410.97	326,801.11
Total assets	11,907,826.86	15,249,203.36	17,683,264.07
LIABILITIES			
Debenture balance	8,711,308.37	10,678,078.36	11,831,811.03
Accounts payable	1,553,711.45	1,682,150.29	2,040,038.01
Bank overdraft	160,919.16	228,622.50	292,106.44
Other liabilities	42,412.81	113,838.66	37,388.31
Total liabilities	10,468,351.79	12,702,689.81	14,201,343.79
RESERVES			
For equity in H-E.P.C. systems			
For depreciation	478,145.88	850,618.07	1,337,739.73
Other reserves			
Total reserves	478,145.88	850,618.07	1,337,739.73
SURPLUS			
Debentures paid	202,751.26	320,129.10	394,466.22
Local sinking fund	431,747.27	625,217.03	868,983.78
Operating surplus	326,830.66	750,549.35	880,730.55
Total surplus	961,329.19	1,695,895.48	2,144,180.55
Total liabilities, reserves and surplus	11,907,826.86	15,249,203.36	17,683,264.07
Percentage of net debt to total assets	88.0	88.3	80.3

NOTE.—In computing the "percentage of net debt to total assets" the ornamental street lighting capital, sinking fund on local debentures, and equity in H-E.P.C. systems, are excluded from assets; and the total liabilities are reduced by the amount of the local sinking

BALANCE SHEET

1916	1917	1918	1919	1920	1921
128	143	166	191	195	215
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,335,936.33	1,546,241.41	1,859,888.69	1,995,545.83	2,175,568.24	3,230,985.63
1,934,626.12	2,471,293.82	2,820,488.70	2,915,125.56	3,231,050.80	5,403,689.90
4,832,353.27	6,090,073.42	6,627,237.39	7,445,820.31	8,579,881.49	8,397,361.48
1,095,709.62	1,157,059.90	1,216,288.59	1,206,296.88	1,313,369.29	1,401,135.97
1,179,132.07	1,483,839.44	1,772,691.35	2,073,113.45	2,560,581.59	3,077,649.83
1,711,299.49	1,999,095.48	2,238,143.70	2,587,566.32	3,053,135.20	3,552,076.79
1,251,057.13	1,237,734.69	1,200,625.65	1,206,638.71	1,269,006.98	1,335,997.13
306,388.95	361,975.74	531,502.61	546,497.68	557,678.13	610,586.70
2,059,263.42	2,184,015.84	2,395,096.50	2,530,101.08	2,697,636.12	3,030,134.16
864,500.01	896,753.20	214,575.75	986,200.57	757,194.47	704,848.46
759,748.66	649,852.51	1,476,413.00	805,959.89	864,298.39	912,388.55
17,330,015.07	20,077,935.45	22,352,951.93	24,298,866.28	27,059,400.70	31,656,854.60
1,061,029.90	340,026.50	391,194.91	462,437.23	943,858.12	900,842.34
....	....	....	627,076.53	341,855.88	477,678.69
695,152.23	1,285,097.33	1,124,018.44	1,921,166.69	2,022,538.88	2,155,788.62
764,504.59	1,261,398.36	972,996.96	1,032,569.75	1,400,671.89	1,504,596.28
1,166,017.73	1,337,578.96	1,663,298.05	1,925,455.77	2,244,004.34	2,541,718.35
....	....	....	369,071.89	577,584.06	795,570.51
342,215.87	125,240.05	444,787.63	86,216.05	25,447.07	78,929.84
21,358,935.39	24,427,276.65	26,949,247.92	30,722,860.19	34,615,360.94	40,111,979.23
15,058,641.57	15,593,773.61	17,209,217.70	18,133,462.44	19,268,072.04	21,619,220.99
969,187.75	1,537,669.11	1,007,727.79	1,420,926.66	1,840,137.54	1,887,567.93
178,413.26	886,177.94	576,816.49	403,235.57	514,671.99	989,099.98
491,874.90	429,104.20	350,013.21	670,271.90	642,293.65	938,368.84
16,698,117.48	18,446,724.86	19,143,775.19	20,627,896.57	22,265,175.22	25,434,257.74
			373,871.89	577,584.06	800,249.05
1,843,804.68	2,463,723.83	3,133,550.17	3,750,162.28	4,788,645.03	5,491,858.93
....	....	....	....	....	....
1,843,804.68	2,463,723.83	3,133,550.17	4,124,034.17	5,366,229.09	6,292,107.98
549,778.59	694,797.90	920,076.56	1,328,657.68	1,440,156.52	1,860,079.53
1,165,785.94	1,340,615.38	1,662,602.69	1,754,020.37	2,246,474.47	2,541,718.35
1,101,448.70	1,481,414.68	2,089,243.31	2,888,251.40	3,297,325.64	3,983,815.63
2,817,013.23	3,516,827.96	4,671,922.56	5,970,929.45	6,983,956.63	8,385,613.51
21,358,935.39	24,427,276.65	26,949,247.92	30,722,860.19	34,615,360.94	40,111,979.23
78.4	75.5	71.0	67.9	65.4	64.7

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fund reserve, and the liability in respect to the street lighting capital, which amount is included in other liabilities.

CONSOLIDATED

YEAR	1922	1923	1924	1925
Number of municipalities included	226	235	248	247
ASSETS	$ c.	$ c.	$ c.	$ c.
Lands and buildings	3,334,522.68	4,488,054.93	4,561,648.92	5,768,855.99
Substation equipment	5,046,857.98	6,015,919.75	6,800,238.00	8,543,166.55
Distribution system—overhead	11,165,330.24	13,135,581.76	14,182,190.33	16,837,535.57
Distribution system—underground	1,598,053.02	1,959,120.41	2,873,446.13	3,388,837.09
Line transformers	3,618,684.73	4,211,655.89	4,456,669.02	5,079,754.23
Meters	4,033,689.52	4,548,933.73	5,149,629.71	5,533,483.92
Street lighting equipment–regular	1,419,016.05	1,061,473.85	1,134,491.77	1,256,916.53
Street lighting equipment–ornamental	666,084.50	708,431.22	728,298.08	893,186.48
Miscellaneous construction expenses	3,261,495.74	3,681,274.88	4,168,262.21	4,485,110.96
Steam or hydraulic plant	565,158.54	566,619.86	4,196,803.45	568,912.49
Old plant	7,997,947.87	8,051,496.28	5,587,420.31	4,549,142.46
Total plant	42,706,840.87	48,428,562.56	53,839,097.93	56,904,902.27
Bank and cash balance	1,164,336.24	1,276,140.06	1,748,912.34	1,700,145.30
Securities and investments	443,938.18	1,153,424.47	1,329,622.58	1,095,662.92
Accounts receivable	3,874,317.14	3,198,769.34	3,898,751.89	3,417,558.86
Inventories	1,738,795.96	1,819,711.62	1,745,628.16	1,711,504.13
Sinking fund on local debentures	3,416,231.45	3,896,261.28	4,520,723.06	5,202,451.70
Equity in H-E.P.C. systems	1,543,434.12	2,929,603.94	5,420,567.58	7,551,588.70
Other assets	238,940.13	190,071.63	250,292.77	137,280.05
Total assets	55,126,834.09	62,892,544.90	72,753,596.31	77,721,093.93
LIABILITIES				
Debenture balance	30,454,186.12	33,056,501.29	38,005,162.50	37,919,225.01
Accounts payable	3,699,292.52	3,708,781.76	3,117,224.08	3,139,067.92
Bank overdraft	456,706.69	680,714.59	162,100.71	226,147.82
Other liabilities	586,203.02	1,517,828.47	1,780,564.27	1,075,914.83
Total liabilities	35,196,388.35	38,963,826.11	43,065,051.56	42,360,355.58
RESERVES				
For equity in H-E.P.C. systems	1,543,434.12	2,929,603.94	5,420,567.58	7,551,588.70
For depreciation	6,512,813.92	7,328,858.69	8,097,834.68	8,699,437.68
Other reserves	....	....	....	1,157,147.20
Total reserves	8,056,248.04	10,258,462.63	13,518,402.26	17,408,173.58
SURPLUS				
Debentures paid	3,104,591.15	2,852,038.38	3,530,610.35	4,440,138.34
Local sinking fund	3,416,231.45	3,896,261.28	4,520,723.06	5,202,451.70
Operating surplus	5,353,375.10	6,921,956.50	8,118,809.08	8,309,974.73
Total surplus	11,874,197.70	13,670,256.16	16,170,142.49	17,952,564.77
Total liabilities, reserves and surplus	55,126,834.09	62,892,544.90	72,753,596.31	77,721,093.93
Percentage of net debt to total assets	63.3	62.6	61.4	57.2

BALANCE SHEET—Continued

1926	1927	1928	1929	1930	1931
251	252	256	260	267	275
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
6,111,162.54	6,486,426.89	7,024,646.76	7,469,451.46	7,936,974.31	8,407,664.48
9,505,501.77	15,088,905.14	16,866,186.21	18,102,792.13	19,485,056.28	21,013,956.74
18,654,240.54	16,689,462.41	17,688,050.68	18,108,016.82	19,220,326.48	19,918,355.76
3,689,569.95	3,278,382.58	3,559,288.16	4,823,369.60	4,932,189.05	5,361,627.24
5,538,605.24	5,985,521.37	6,549,674.64	7,312,742.17	7,953,090.23	8,649,875.07
5,963,162.51	6,346,660.59	6,839,802.90	7,405,478.91	7,840,948.07	8,106,202.88
1,309,608.30	1,399,314.06	1,486,646.24	1,594,183.25	1,780,785.67	2,205,613.18
1,103,660.23	1,184,035.82	1,203,706.65	1,458,349.64	1,520,891.01	1,456,742.91
3,456,777.71	3,360,671.09	3,394,626.92	3,483,487.78	3,996,747.77	3,827,132.05
628,909.57	607,320.00	619,880.93	489,097.57	139,587.28	458,374.05
4,655,422.59	5,095,555.90	5,032,089.26	5,093,378.75	5,322,690.14	7,146,437.96
60,616,620.95	65,522,255.85	70,264,599.35	75,340,348.08	80,129,286.29	86,551,982.32
2,136,290.79	3,014,832.48	1,342,367.07	858,733.68	2,722,250.12	2,738,319.67
1,400,316.43	1,696,237.66	1,837,140.51	2,001,088.81	1,909,439.11	1,999,846.42
3,508,817.87	3,715,770.72	4,097,446.13	4,683,201.97	4,481,006.92	3,957,972.78
1,397,667.83	1,412,729.41	1,220,186.10	1,365,033.58	1,242,994.51	1,276,531.01
5,599,675.01	6,398,909.77	7,071,273.69	7,753,613.88	8,396,255.47	8,735,050.84
8,046,868.53	10,143,205.66	12,326,097.56	14,754,865.40	17,346,372.44	20,103,275.76
33,151.81	31,942.45	153,275.04	152,260.86	173,030.05	174,879.28
82,739,409.22	91,935,884.00	98,312,385.45	106,909,146.26	116,400,634.91	125,537,858.08
39,602,533.48	42,891,361.57	42,597,175.78	42,930,127.74	45,091,808.06	44,594,400.03
3,118,684.78	2,988,621.90	3,074,634.25	3,132,145.03	3,001,186.21	5,382,306.13
163,725.53	252,362.52	253,143.81	412,056.69	405,663.14	312,575.54
1,087,795.08	1,154,810.24	1,258,610.23	1,621,378.17	1,642,771.59	1,909,986.13
43,972,738.87	47,287,156.23	47,183,564.07	48,095,707.63	50,141,429.00	52,199,267.83
8,046,868.53	10,143,205.66	12,326,097.56	14,754,865.40	17,346,372.44	20,103,275.76
9,360,322.27	10,319,889.05	11,140,795.68	11,911,154.49	12,885,387.51	13,748,049.68
947,970.23	1,002,916.69	1,117,257.63	1,437,371.26	1,574,655.74	1,693,129.83
18,355,161.03	21,466,011.40	24,584,150.87	28,103,391.15	31,806,415.69	35,544,455.27
5,493,879.83	6,648,767.38	7,928,907.61	9,194,253.59	10,728,279.15	13,150,040.37
5,599,675.01	6,398,909.77	7,071,273.69	7,962,121.20	8,396,255.47	8,735,050.84
9,317,954.48	10,135,039.22	11,544,489.21	13,553,672.69	15,328,255.60	15,909,043.77
20,411,509.32	23,182,716.37	26,544,670.51	30,710,047.48	34,452,790.22	37,794,134.98
82,739,409.22	91,935,884.00	98,312,385.45	106,909,146.26	116,400,634.91	125,537,858.08
55.5	54.2	50.8	47.8	46.0	44.1

CONSOLIDATED BALANCE SHEET—Concluded

YEAR	1932	1933	1934
Number of municipalities included	280	282	282
ASSETS	$ c.	$ c.	$ c.
Lands and buildings	9,503,743.78	10,186,471.28	10,262,692.98
Substation equipment	22,288,781.68	22,306,800.94	22,327,618.75
Distribution system—overhead	20,866,767.32	21,152,681.20	21,353,725.80
Distribution system—underground	5,820,056.75	5,945,225.61	6,031,767.74
Line transformers	9,392,662.62	9,478,605.14	9,635,279.35
Meters	8,403,251.67	8,514,165.03	8,624,504.78
Street lighting equipment—regular	2,257,618.20	2,381,599.40	2,395,296.48
Street lighting equipment—ornamental	1,545,354.93	1,458,443.68	1,464,306.73
Miscellaneous construction expenses	4,120,926.11	4,040,859.74	3,907,359.92
Steam or hydraulic plant	498,231.69	502,978.62	494,932.96
Old plant	4,989,654.97	5,016,755.92	4,978,079.44
Other plants not distributed	200,000.00	200,000.00	200,000.00
Total plant	89,887,049.72	91,184,586.56	91,675,564.93
Bank and cash balance	3,185,442.00	1,696,489.24	2,215,914.31
Securities and investments	2,059,325.10	2,163,785.20	2,382,446.41
Accounts receivable	3,683,059.42	3,746,910.92	4,001,596.09
Inventories	1,232,209.52	1,226,043.30	1,110,705.38
Sinking fund on local debentures	9,099,210.61	9,386,176.58	9,161,419.77
Equity in H-E.P.C. systems	23,066,129.81	26,045,679.00	29,274,340.46
Other assets	163,637.79	253,581.84	289,158.19
Total assets	132,376,063.97	135,703,252.64	140,111,145.54
LIABILITIES			
Debenture balance	45,133,305.97	42,606,145.29	39,646,989.68
Accounts payable	3,512,724.58	3,320,485.45	3,149,035.07
Bank overdraft	298,910.20	206,398.00	143,556.95
Other liabilities	3,740,376.11	3,787,725.14	3,669,008.56
Total liabilities	52,685,316.86	49,920,753.88	46,608,590.26
RESERVES			
For equity in H-E.P.C. systems	23,066,129.81	26,045,679.00	29,274,340.46
For depreciation	14,902,177.02	16,075,959.28	17,426,809.32
Other reserves	1,902,308.64	2,048,081.84	2,056,820.81
Total reserves	39,870,615.47	44,169,720.12	48,757,970.59
SURPLUS			
Debentures paid	15,244,778.28	17,651,367.71	20,608,129.73
Local sinking fund	9,099,210.61	9,386,176.58	9,161,419.77
Operating surplus	15,476,142.75	14,575,234.35	14,975,035.19
Total surplus	39,820,131.64	41,612,778.64	44,744,584.69
Total liabilities, reserves and surplus	132,376,063.97	135,703,252.64	140,111,145.54
Percentage of net debt to total assets	43.4	40.4	35.9

CONSOLIDATED OPERATING REPORT

YEAR	1912	1913	1914	1915
Number of municipalities included	28	45	69	99
EARNINGS	$ c.	$ c.	$ c.	$ c.
Domestic service		572,154.38	789,130.81	944,271.08
Commercial light service		525,438.16	673,803.92	720,209.26
Commercial power service		905,378.17	1,214,829.31	1,501,797.78
Municipal power				
Street lighting		560,925.56	698,409.71	835,970.87
Rural service				
Miscellaneous		53,543.24	57,482.41	68,046.29
Total earnings	1,617,674.00	2,617,439.51	3,433,656.16	4,070,295.28
EXPENSES				
Power purchased		789,632.87	1,045,752.65	1,484,666.00
Substation operation		78,394.81	97,658.90	107,607.31
Substation maintenance		18,698.46	31,790.99	25,935.56
Distribution system, operation and maintenance		104,114.51	130,998.65	154,409.71
Line transformer maintenance		8,547.61	11,764.32	11,508.92
Meter maintenance		5,222.19	9,536.07	12,899.14
Consumers' premises expenses		53,108.38	65,192.23	47,494.26
Street lighting, operation and maintenance		84,903.76	113,047.80	136,983.38
Promotion of business		72,303.51	86,683.02	74,402.55
Billing and collecting		77,351.76	103,560.71	131,541.27
General office, salaries and expenses		154,932.69	230,899.75	236,777.86
Undistributed expense		65,423.64	89,350.91	129,209.15
Interest		528,549.21	662,092.34	817,978.89
Sinking fund and principal payments on debentures		*	*	*
Total expenses	1,377,168.00	2,041,183.40	2,678,328.34	3,371,414.00
Surplus	240,506.00	576,256.11	755,327.82	698,881.28
Depreciation charge	124,992.47	262,675.24	357,883.31	414,506.99
Surplus less depreciation	115,513.53	313,580.87	397,444.51	284,374.29

*Debenture payments included in "Interest."

CONSOLIDATED

YEAR	1916	1917	1918	1919
Number of municipalities included	128	143	166	181
EARNINGS	$ c.	$ c.	$ c.	$ c.
Domestic service	1,172,878.96	1,417,460.31	1,632,272.12	1,991,632.31
Commercial light service	812,130.78	899,023.72	968,399.42	1,175,143.56
Commercial power service	1,921,152.31	2,665,280.65	3,417,248.37	3,443,107.13
Municipal power				
Street lighting	930,057.48	967,495.10	902,875.55	988,900.95
Rural service				
Miscellaneous	147,381.50	120,805.39	161,243.70	228,270.65
Total earnings	4,983,601.03	6,070,065.17	7,082,039.16	7,827,054.60
EXPENSES				
Power purchased	1,959,446.83	2,573,879.37	2,807,769.33	3,284,490.68
Substation operation	153,761.08	203,091.20	238,257.34	217,638.89
Substation maintenance	46,131.53	42,129.04	60,805.92	81,853.63
Distribution system, operation and maintenance	154,247.17	169,326.24	223,347.81	286,310.76
Line transformer maintenance	14,528.17	25,328.95	30,488.83	42,509.12
Meter maintenance	24,218.48	44,461.55	63,155.56	78,726.64
Consumers premises expenses	52,602.01	61,765.14	65,149.59	84,301.24
Street lighting, operation and maintenance	145,471.50	157,857.73	196,157.18	215,963.86
Promotion of business	79,324.85	73,516.37	64,962.78	74,789.22
Billing and collecting	154,508.58	188,083.84	208,660.76	236,504.75
General office, salaries and expenses	306,709.35	349,932.05	421,680.15	452,131.22
Undistributed expense	97,333.97	102,938.80	117,474.07	190,690.09
Interest	951,781.99	1,085,180.80	1,238,425.53	1,285,571.51
Sinking fund and principal payments on debentures	*	*	*	*
Total expenses	4,140,065.51	5,077,491.08	5,736,334.85	6,531,481.61
Surplus	843,535.52	992,574.09	1,345,704.31	1,295,572.99
Depreciation charge	486,141.80	607,296.29	718,162.30	814,219.37
Surplus less depreciation	357,393.72	385,277.80	627,542.01	481,353.62

*Debenture payments included in "Interest."

OPERATING REPORT—Continued

1920	1921	1922	1923	1924	1925
186	205	214	224	241	242
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,546,345.30	3,149,080.03	3,786,608.23	5,166,452.24	5,993,231.07	6,439,159.86
1,512,854.63	1,851,501.76	2,158,306.34	3,260,772.50	3,566,227.22	3,866,292.79
3,752,188.22	3,895,437.46	4,383,912.97	5,927,666.37	6,222,865.88	6,568,854.77
532,279.09	654,531.01	973,263.38	1,161,598.60	1,352,966.47	1,923,093.09
1,005,535.11	1,060,357.77	1,160,446.81	1,269,604.48	1,356,668.97	1,415,382.22
168,919.95	145,566.57	105,877.09	116,639.06	75,100.24	37,975.18
189,778.63	225,467.70	187,689.39	316,311.21	231,663.58	286,451.08
9,707,900.93	10,981,942.30	12,756,104.21	17,219,044.46	18,798,723.43	20,537,208.99
4,216,667.87	4,876,650.31	6,636,853.37	8,699,026.67	9,669,789.40	11,063,123.34
285,407.35	314,838.35	315,443.70	474,442.13	430,056.09	417,921.71
102,050.81	104,798.01	100,763.67	133,815.53	202,050.04	207,497.63
344,551.57	487,918.33	519,252.16	636,477.41	648,700.62	686,344.54
46,323.09	65,088.46	52,932.26	75,920.10	82,936.50	75,473.28
123,701.18	116,722.97	107,806.88	139,104.81	141,231.23	156,909.55
116,283.52	134,854.92	143,388.88	218,682.02	237,316.20	252,808.47
236,930.79	297,481.52	297,363.86	299,579.08	269,973.30	275,316.60
78,294.85	101,804.46	129,932.63	184,371.00	202,060.74	217,102.24
295,942.88	321,685.71	338,153.50	444,306,92	490,273.30	521,134.01
559,695.29	656,268.11	605,852.50	937,463.47	889,907.66	891,640.29
256,400.33	308,874.42	385,895.03	359,206.91	494,078.50	520,584.58
1,431,807.16	998,611.47	1,074,657.44	1,615,205.16	1,779,991.26	1,889,810.95
*	532,183.96	635,469.90	990,907.14	1,122,798.87	1,294,027.29
8,094,056.69	9,317,781.00	11,343,765.78	15,208,508.35	16,661,163.71	18,469,694.48
1,613,844.24	1,664,161.30	1,412,338.43	2,010,536.11	2,137,559.72	2,067,514.51
902,028.75	1,044,434.85	715,814.24	916,782.75	973,649.62	1,068,880.42
711,815.49	619,726.45	696,524.19	1,093,753.36	1,163,910.10	998,634.09

CONSOLIDATED

YEAR	1926	1927	1928
Number of municipalities included	248	251	255
EARNINGS	$ c.	$ c.	$ c.
Domestic service	7,372,602.62	8,189,866.89	8,925,050.56
Commercial light service	4,187,899.19	4,626,815.51	5,182,723.32
Commercial power service	6,789,217.54	7,342,173.20	8,298,669.44
Municipal power	1,922,512.34	1,913,502.88	1,921,300.97
Street lighting	1,457,686.21	1,489,242.37	1,534,476.98
Rural service—merchandise*	37,810.73	13,765.72	48,451.90*
Miscellaneous	471,134.15	581,913.04	465,791.92
Total earnings	22,238,862.78	24,157,279.61	26,376,465.09
EXPENSES			
Power purchased	12,185,669.10	13,505,583.77	14,688,570.08
Substation operation	450,416.84	430,211.76	420,512.48
Substation maintenance	286,520.37	275,148.86	247,647.88
Distribution system, operation and maintenance	795,514.70	758,747.10	736,159.85
Line transformer maintenance	74,876.11	94,706.38	88,676.18
Meter maintenance	189,603.70	214,813.87	218,530.96
Consumers' premises expense	275,020.62	285,352.68	291,333.03
Street lighting, operation and maintenance	295,869.37	318,395.79	329,597.16
Promotion of business	234,696.74	220,687.60	249,842.01
Billing and collecting	557,271.54	605,627.58	638,797.02
General office, salaries and expenses	786,742.60	824,868.90	844,578.55
Undistributed expense	460,288.30	531,003.80	542,755.34
Truck operation and maintenance	....	....	....
Interest	1,985,233.73	2,063,698.00	2,111,049.49
Sinking fund and principal payments on debentures	1,347,511.92	1,505,626.31	1,601,711.32
Total expenses	19,925,235.64	21,634,472.40	23,009,761.35
Surplus	2,313,627.14	2,522,807.21	3,366,703.74
Depreciation charge	1,146,273.05	1,249,711.65	1,350,252.16
Surplus less depreciation	1,167,354.09	1,273,095.56	2,016,451.58

OPERATING REPORT—Concluded

1929	1930	1931	1932	1933	1934
259	267	275	280	282	282
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
9,873,681.57	10,542,903.89	10,972,952.10	11,447,307.85	11,429,101.13	11,844,033.10
5,697,766.06	5,961,383.23	6,230,475.89	6,243,794.01	6,013,025.96	6,206,086.35
9,376,158.74	9,340,653.28	9,456,224.97	9,356,693.88	9,080,522.07	9,692,784.37
2,086,444.24	2,111,482.38	1,967,118.54	1,859,585.35	1,826,872.07	1,875,969.80
1,598,262.43	1,674,528.03	1,746,855.24	1,783,972.46	1,779,582.48	1,777,596.69
51,590.54*	28,954.60*	29,446.38*	11,069.27*	12,812.74*	18,747.73*
522,780.95	581,914.78	511,139.80	513,787.30	485,925.43	555,172.04
29,206,684.53	30,241,820.19	30,914,212.92	31,216,210.12	30,627,841.88	31,970,390.08
16,379,162.88	17,323,077.97	18,085,166.51	19,109,036.25	19,330,861.58	19,591,887.79
461,270.27	479,502.48	487,484.17	503,351.82	484,764.57	468,944.09
274,275.56	320,716.48	303,536.11	300,186.15	288,583.29	296,550.52
907,817.04	991,972.86	1,015,256.14	969,750.61	895,350.99	844,813.95
93,608.14	96,746.35	93,463.24	95,485.55	82,321.32	75,172.18
242,126.27	278,379.43	284,633.88	300,104.85	283,115.98	291,402.79
314,495.03	317,902.45	363,078.47	368,208.73	361,499.20	352,499.09
359,373.40	372,211.17	368,119.49	360,709.76	353,082.15	338,784.80
250,844.28	249,070.05	255,956.03	266,760.84	259,936.42	228,741.36
695,729.42	745,159.02	792,983.99	818,721.33	817,660.03	827,860.20
904,025.64	907,226.89	923,676.84	960,558.88	908,517.79	908,039.75
502,206.06	523,862.96	520,893.10	436,692.96	349,101.36	362,322.12
110,630.62	112,029.82	107,918.93	112,059.90	105,452.68	98,081.61
2,152,695.49	2,220,214.45	2,328,094.32	2,532,940.93	2,426,286.35	2,204,994.25
1,687,201.64	1,828,061.62	2,061,718.79	2,244,367.86	2,319,319.09	2,358,169.12
25,335,461.74	26,766,134.00	27,991,980.01	29,378,936.42	29,265,852.80	29,248,263.62
3,871,222.79	3,475,686.19	2,922,232.91	1,837,273.70	1,361,989.08	2,722,126.46
1,469,846.83	1,574,991.68	1,775,330.69	1,920,896.22	1,989,000.41	2,036,637.33
2,401,375.96	1,900,694.51	1,146,902.22	83,622.52 (loss)	627,011.33 (loss)	685,489.13

*Profits from the sale of merchandise. Rural service now given in "Rural Power Districts." Consult Section IX.

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM

Municipality Population	Acton 1,885	Agincourt P.V.	Ailsa Craig 468	Alvinston 690	Amherst-burg 3,128
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	1,545.45			133.56	
Substation equipment	1,847.39				932.00
Distribution system—overhead	23,731.31	8,549.88	7,571.03	14,008.12	33,992.16
Distribution system—underground					
Line transformers	10,819.41	3,686.18	1,746.09	2,905.49	15,917.83
Meters	10,740.33	2,576.73	2,443.67	2,972.37	15,598.85
Street light equipment, regular	1,873.97	802.74	404.09	1,090.62	812.44
Street light equipment, ornamental					5,598.72
Miscellaneous construction expense	2,486.09	93.20	492.36	791.52	1,635.40
Steam or hydraulic plant					
Old plant	3,481.50			773.85	
Total plant	56,525.45	15,708.73	12,657.24	22,675.53	74,487.40
Bank and cash balance	3,355.53	3,755.23	6,093.32	169.05	5,718.68
Securities and investments	4,500.00	1,000.00	3,000.00	2,000.00	
Accounts receivable	1,665.28	648.78	9.08	155.82	2,146.67
Inventories	759.47				
Sinking fund on local debentures					
Equity in H-E.P.C. systems	39,496.60	5,977.41	10,326.94	10,682.38	30,980.31
Other assets					2,824.91
Total assets	106,302.33	27,090.15	32,086.58	35,682.78	116,157.97
Deficit				5,049.80	
Total	106,302.33	27,090.15	32,086.58	40,732.58	116,157.97
LIABILITIES					
Debenture balance		2,830.46		11,344.36	20,171.58
Accounts payable			170.18	1,108.11	
Bank overdraft					
Other liabilities	680.34		75.00	17.23	7,139.27
Total liabilities	680.34	2,830.46	245.18	12,469.70	27,310.85
RESERVES					
For equity in H-E.P.C. systems	39,496.60	5,977.41	10,326.94	10,682.38	30,980.31
For depreciation	10,164.03	1,901.63	4,941.77	5,395.62	15,731.04
Other reserves					
Total reserves	49,660.63	7,879.04	15,268.71	16,078.00	46,711.35
SURPLUS					
Debentures paid	14,500.00	5,242.19	6,883.38	12,184.88	11,882.02
Local sinking fund					
Operating surplus	41,461.36	11,138.46	9,689.31		30,253.75
Total surplus	55,961.36	16,380.65	16,572.69	12,184.88	42,135.77
Total liabilities, reserves and surplus	106,302.33	27,090.15	32,086.58	40,732.58	116,157.97
Percentage of net debt to total assets	1.0	13.4	1.1	49.8	27.3

NOTE.—In computing the "percentage of net debt to total assets," the ornamental street lighting capital, sinking fund on local debentures, and equity in H-E.P.C. systems, are excluded

"A"

Hydro Municipalities as at December 31, 1934

Ancaster Twp.	Arkona 397	Aylmer 1,987	Ayr 773	Baden P.V.	Beachville P.V.	Belle River 719	Blenheim 1,702
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
		9,019.23	125.00	660.64	176.13		
							909.64
16,029.82	9,559.67	20,787.46	12,454.81	7,486.26	13,955.55	16,452.08	25,957.07
10,742.40	1,706.44	10,528.91	3,850.56	4,136.42	3,550.21	3,977.45	8,095.56
4,202.68	1,584.70	9,718.02	3,664.41	3,025.55	3,142.06	3,683.98	9,127.44
1,291.08	718.90	1,742.09	628.42	447.45	444.23	924.29	3,368.26
							1,482.97
324.93	222.10	1,122.18	941.79		602.04	1,034.78	994.91
	1,030.30	6,719.17	4,002.53				
32,590.91	14,822.11	59,637.06	25,667.52	15,756.32	21,870.22	26,072.58	49,935.85
		2,347.64		4,457.97	893.95	2,782.06	5,818.67
		12,000.00			4,000.00	3,000.00	
1,869.03	172.14	2,313.98	659.39	357.02	418.02	1,538.10	698.50
		70.61					26.84
9,432.10	3,415.16	25,372.96	9,069.93	20,951.67	26,195.49	5,846.56	23,423.97
		103.00	517.29				
43,892.04	18,409.41	101,845.25	35,914.13	41,522.98	53,377.68	39.239.30	79,903.83
	1,992.21						
43,892.04	20,401.62	101,845.25	35,914.13	41,522.98	53.377.68	39,239.30	79,903.83
7,612.92	9,141.90	18,857.01	6,581.43	1,882.06	2,052.05	5,040.53	8,021.78
847.95	2,267.03	140.14		4.77	47.87	255.44	402.23
1,069.44	1.99		132.18				
165.32		103.00				121.00	1,682.97
9,695.63	11,410.92	19,100.15	6,713.61	1,886.83	2,099.92	5,416.97	10,106.98
9,432.10	3,415.16	25,372.96	9,069.93	20,951.67	26,195.49	5,846.56	23,423.97
6,822.77	1,604.61	10,922.63	4,253.68	1,974.83	5,406.88	5,368.02	11,385.37
		390.62	25.00			5,000.00	
16,254.87	5,019.77	36,686.21	13,348.61	22,926.50	31,602.37	16,214.58	34,809.34
3,176.66	3,970.93	19,844.91	10,921.95	3,117.94	3,300.95	3,459.47	5,978.22
14,764.88		26,213.98	4,929.96	13,591.71	16,374.44	14,148.28	29,009.29
17,941.54	3,970.93	46,058.89	15,851.91	16,709.65	19,675.39	17,607.75	34,987.51
43,892.04	20,401.62	101,845.25	35,914.13	41,522.98	53,377.68	39,239.30	79,903.83
28.1	76.1	24.9	25.1	9.2	7.7	16.2	15.7

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from assets; and the total liabilities are reduced by the amount of the local sinking fund reserve, and the liability in respect to the street lighting capital, which amount is included in other liabilities.

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Blyth	Bolton	Bothwell	Brampton	Brantford
Population	626	553	685	5,550	30,611
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings				5,355.12	86,967.53
Substation equipment				24,742.53	162,963.03
Distribution system—overhead	11,286.08	9,931.57	6,049.46	50,147.16	231,783.46
Distribution system—underground					
Line transformers	2,441.35	4,296.34	2,753.37	30,179.67	111,208.51
Meters	1,945.31	3,019.46	2,867.97	26,798.82	118,494.12
Street light equipment, regular	1,284.19	856.19	203.51	2,645.94	24,032.64
Street light equipment, ornamental			4,431.19		41,476.69
Miscellaneous construction expense	280.63	1,050.06	528.65	18,218.69	30,625.19
Steam or hydraulic plant					
Old plant	2,332.68	1,554.60			6,000.00
Plant not distributed					200,000.00
Total plant	19,570.24	20,708.22	16,834.15	158,087.93	1,013,551.17
Bank and cash balance	1,974.16	1,829.88	2,475.70	4,607.94	82,973.87
Securities and investments			11,000.00	5,107.14	
Accounts receivable	981.71	255.08	177.26	3,474.41	37,023.72
Inventories				134.55	13,674.94
Sinking fund on local debentures					27,893.93
Equity in H-E.P.C. systems	5,601.56	11,594.40	11,986.22	103,319.95	530,929.09
Other assets					24,120.13
Total assets	28,127.67	34,387.58	42,473.33	274,731.92	1,730,166.85
Deficit					
Total	28,127.67	34,387.58	42,473.33	274,731.92	1,730,166.85
Liabilities					
Debenture balance	7,965.97	5,449.75	2,864.86	10,889.55	*177,250.00
Accounts payable			40.87	2,010.88	62,643.61
Bank overdraft					
Other liabilities	105.00		1,161.22		169,414.23
Total liabilities	8,070.97	5,449.75	4,066.95	12,900.43	409,307.84
Reserves					
For equity in H-E.P.C. systems	5,601.56	11,594.40	11,986.22	103,319.95	530,929.09
For depreciation	3,224.77	5,479.64	6,309.07	46,379.33	225,652.95
Other reserves				153.89	88,159.20
Total reserves	8,826.33	17,074.04	18,295.29	149,853.17	844,741.24
Surplus					
Debentures paid	8,303.06	7,050.25	2,669.33	58,161.09	352,750.00
Local sinking fund					27,893.93
Operating surplus	2,927.31	4,813.54	17,441.76	53,817.23	95,473.84
Total surplus	11,230.37	11,863.79	20,111.09	111,978.32	476,117.77
Total liabilities, reserves and surplus	28,127.67	34,387.58	42,473.33	274,731.92	1,730,166.85
Percentage of net debt to total assets	35.8	23.9	11.3	7.5	33.0

*Includes a balance of $117,192.76 on purchase agreement.

"A"—Continued

Hydro Municipalities as at December 31, 1934

Brantford Twp.	Bridgeport P.V.	Brigden P.V.	Brussels 766	Burford P.V.	Burgessville P.V.	Caledonia 1,475	Campbellville P.V.
		101.03		202.00			
1,192.71							
52,904.09	9,643.35	7,095.84	13,614.29	9,241.18	3,490.03	17,862.19	2,978.42
17,010.33	3,979.30	2,060.02	2,402.70	2,983.01	1,390.44	6,432.74	718.23
12,030.90	2,217.15	2,238.85	3,853.17	3,374.95	966.40	6,337.55	567.30
4,423.83	1,602.69	464.90	1,574.74	425.14	261.02	1,582.94	283.06
2,913.79	563.56	888.11	1,572.29	710.03	457.22	751.15	45.82
		1,381.00	2,827.50				
90,475.65	18,006.05	14,229.75	25,844.69	16,936.31	6,565.11	32,966.57	4,592.83
1,453.06		596.56	5,389.35	2,074.92	5.61	590.41	624.60
				4,000.00		2,000.00	1,000.00
586.06	344.07	61.64	367.38	528.65	90.65	506.93	270.46
3,670.34							
18,138.49	3,071.37	7,753.45	7,802.49	8,456.43	3,481.08	13,726.27	1,344.24
1,542.65	75.83	10.00		38.00			
115,866.25	21,497.32	22,651.40	39,403.91	32,034.31	10,142.45	49,790.18	7,832.13
115,866.25	21,497.32	22,651.40	39,403.91	32,034.31	10,142.45	49,790.18	7,832.13
20,028.19	11,306.47	617.84	12,216.75		290.94	1,525.51	3,320.81
	343.07	4.80	1,769.37	5.66	206.90		112.87
	24.94						
1,542.65	75.00	10.00		38.00			
21,570.84	11,749.48	632.64	13,986.12	43.66	497.84	1,525.51	3,433.68
18,138.49	3,071.37	7,753.45	7,802.49	8,456.43	3,481.08	13,726.27	1,344.24
19,376.10	4,955.00	3,416.14	4,598.41	4,438.38	2,440.03	3,165.78	794.54
35.47		81.67			85.41		
37,550.06	8,026.37	11,251.26	12,400.90	12,894.81	6,006.52	16,892.05	2,138.78
37,097.47	1,061.56	7,382.16	8,783.25	9,000.00	3,209.06	3,098.49	2,126.96
3,670.34							
15,977.54	659.91	3,385.34	4,233.64	10,095.84	429.03	28,274.13	132.71
56,745.35	1,721.47	10,767.50	13,016.89	19,095.84	3,638.09	31,372.62	2,259.67
115,866.25	21,497.32	22,651.40	39,403.91	32,034.31	10,142.45	49,790.18	7,832.13
17.7	63.6	4.2	44.3	0.0	7.6	4.2	52.9

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Cayuga	Chatham	Chippawa	Clifford	Clinton
Population	693	16,140	1,051	440	1,848
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings		46,616.76	631.50		8,760.82
Substation equipment		116,587.41			7,544.43
Distribution system—overhead	14,301.70	161,717.23	19,123.86	7,590.95	23,166.21
Distribution system—underground		79,554.42			
Line transformers	3,162.29	87,055.49	6,107.56	1,062.76	8,387.85
Meters	2,783.22	68,572.57	4,702.80	2,236.32	9,450.39
Street light equipment, regular	942.83	18,839.01	1,877.81	687.42	1,299.53
Street light equipment, ornamental		35,426.10			
Miscellaneous construction expense	476.26	33,018.76	1,104.69	37.44	3,759.14
Steam or hydraulic plant					
Old plant		42,752.31			10,658.09
Total plant	21,666.30	690,140.06	33,548.22	11,614.89	73,026.46
Bank and cash balance	1,752.86	25,627.89	1,222.90	326.99	1,178.38
Securities and investments					3,000.00
Accounts receivable	510.06	22,504.89	261.73	346.24	1,104.72
Inventories	142.48	4,325.75		16.32	2,431.43
Sinking fund on local debentures					35,146.72
Equity in H-E.P.C. systems	5,318.80	244,910.27	10,688.98	3,866.53	29,163.38
Other assets		4,343.12	157.69		
Total assets	29,390.50	991,851.98	45,879.52	16,170.97	145,051.09
Deficit	1.51				
Total	29,392.01	991,851.98	45,879.52	16,170.97	145,051.09
LIABILITIES					
Debenture balance	12,614.88	230,001.16	5,626.24	6,578.00	44,500.00
Accounts payable	450.51	22,621.42	176.27	71.43	26.27
Bank overdraft					
Other liabilities	45.00	39,769.22	150.00		308.81
Total liabilities	13,110.39	292,391.80	5,952.51	6,649.43	44,835.08
RESERVES					
For equity in H-E.P.C. systems	5,318.80	244,910.27	10,688.98	3,866.53	29,163.38
For depreciation	3,577.70	123,171.63	7,122.61	1,765.93	21,342.54
Other reserves		5,224.83			611.25
Total reserves	8,896.50	373,306.73	17,811.59	5,632.46	51,117.17
SURPLUS					
Debentures paid	7,385.12	139,998.84	7,723.76	1,422.00	
Local sinking fund					35,146.72
Operating surplus		186,154.61	14,391.66	2,467.08	13,952.12
Total surplus	7,385.12	326,153.45	22,115.42	3,889.08	49,098.84
Total liabilities, reserves and surplus	29,392.01	991,851.98	45,879.52	16,170.97	145,051.09
Percentage of net debt to total assets	54.4	36.1	17.0	54.0	12.0

"A"—Continued

Hydro Municipalities as at December 31, 1934

Comber P.V.	Cottam P.V.	Courtright 338	Dashwood P.V.	Delaware P.V.	Dorchester P.V.	Drayton 559	Dresden 1,469
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	523.00
7,328.96	9,344.64	6,550.80	3,410.51	3,767.08	8,540.27	9,331.97	18,583.38
....	....	....	....	....	....	....	....
3,422.04	1,661.26	1,225.40	1,600.44	914.44	3,286.91	3,328.48	7,524.07
2,459.87	1,778.79	880.37	1,378.45	962.46	2,411.76	3,283.78	6,023.66
384.93	366.43	425.08	353.42	148.08	549.95	673.50	1,127.48
....	....	....	....	....	....	....	....
970.94	219.20	558.67	291.87	203.81	328.41	401.02	824.32
....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	4,815.01
14,566.74	13,370.32	9,640.32	7,034.69	5,995.87	15,117.30	17,018.75	39,420.92
3,017.38	772.90	572.36	1,594.15	906.29	1,425.04	2,483.61	....
....	3,000.00	....	1,500.00	3,000.00	2,000.00	3,000.00	2,000.00
332.22	125.86	259.17	27.53	283.67	55.93	421.45	2,215.68
....	....	....	....	....	....	....	522.72
....	....	....	....	....	....	....	....
12,377.19	2,241.59	3,442.98	5,320.48	1,807.27	4,472.71	7,548.33	19,749.25
....	....	....	....	....	17.00	....	125.00
30,293.53	19,510.67	13,914.83	15,476.85	11,993.10	23,087.98	30,472.14	64,033.57
....	....	....	....	....	....	....	....
30,293.53	19,510.67	13,914.83	15,476.85	11,993.10	23,087.98	30,472.14	64,033.57
1,136.07	6,490.85	2,879.39	2,013.49	2,008.95	2,323.83	6,109.82	....
25.51	130.10	31.35	16.71	314.36	168.53	699.82	11.34
....	....	....	....	....	....	....	178.66
14.01	120.00	....	....	....	17.00	....	125.00
1,175.59	6,740.95	2,910.74	2,030.20	2,323.31	2,509.36	6,809.64	315.00
12,377.19	2,241.59	3,442.98	5,320.48	1,807.27	4,472.71	7,548.33	19,749.25
4,780.09	2,778.63	1,328.15	2,129.52	1,019.58	1,938.97	5,616.51	4,264.18
....	....	....	....	....	64.15	....	192.44
17,157.28	5,020.22	4,771.13	7,450.00	2,826.85	6,475.83	13,164.84	24,205.87
6,563.93	2,509.37	5,258.96	1,386.51	1,991.05	1,976.17	3,390.18	16,238.25
....	....	....	....	....	....	....	....
5,396.73	5,240.13	974.00	4,610.14	4,851.89	12,126.62	7,107.48	23,274.45
11,960.66	7,749.50	6,232.96	5,996.65	6,842.94	14,102.79	10,497.66	39,512.70
30,293.53	19,510.67	13,914.83	15,476.85	11,993.10	23,087.98	30,472.14	64,033.57
6.6	39.0	27.8	20.0	22.8	13.4	29.7	0.4

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Drumbo	Dublin	Dundas	Dunnville	Dutton
Population	P.V.	P.V.	5,032	3,632	798
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings			12,111.11	3,356.09	
Substation equipment			13,396.22	27,302.17	
Distribution system—overhead	4,603.91	5,787.61	50,214.11	37,445.86	9,094.18
Distribution system—underground					
Line transformers	1,537.50	897.65	19,610.94	18,380.09	3,425.25
Meters	1,863.92	874.11	19,728.73	16,419.24	3,347.25
Street light equipment, regular	262.27	544.86	10,834.15	8,012.37	659.31
Street light equipment, ornamental			1,154.52		
Miscellaneous construction expense	255.71	787.06	7,535.13	5,662.66	327.87
Steam or hydraulic plant					
Old plant			1,867.38	10,717.62	
Total plant	8,523.31	8,891.29	136,452.29	127,296.10	16,853.86
Bank and cash balance	3,712.63	593.82	12,054.79	4,479.00	1,016.61
Securities and investments			1,500.00	10,000.00	6,000.00
Accounts receivable	14.21	92.46	5,621.67	5,209.95	418.97
Inventories	53.63		376.45	971.14	11.56
Sinking fund on local debentures					
Equity in H-E.P.C. systems	4,038.57	3,689.72	89,560.24	36,067.19	12,290.97
Other assets			3,704.54		105.15
Total assets	16,342.35	13,267.29	249,269.98	184,023.38	36,697.12
Deficit		707.32			
Total	16,342.35	13,974.61	249,269.98	184,023.38	36,697.12
Liabilities					
Debenture balance	2,260.38	878.53	23,665.98	47,297.17	4,397.80
Accounts payable	62.92	800.03	170.07	5,980.12	63.99
Bank overdraft					
Other liabilities			4,859.06	1,360.35	47.36
Total liabilities	2,323.30	1,678.56	28,695.11	54,637.64	4,509.15
Reserves					
For equity in H-E.P.C. systems	4,038.57	3,689.72	89,560.24	36,067.19	12,290.97
For depreciation	3,197.76	3,284.86	44,821.06	27,572.00	6,206.56
Other reserves			508.52		
Total reserves	7,236.33	6,974.58	134,889.82	63,639.19	18,497.53
Surplus					
Debentures paid	2,239.62	5,321.47	29,334.02	28,202.83	4,009.69
Local sinking fund					
Operating surplus	4,543.10		56,351.03	37,543.72	9,680.75
Total surplus	6,782.72	5,321.47	85,685.05	65,746.55	13,690.44
Total liabilities, reserves and surplus	16,342.35	13,974.61	249,269.98	184,023.38	36,697.12
Percentage of net debt to total assets	18.9	17.5	17.4	37.0	18.5

"A"—Continued

Hydro Municipalities as at December 31, 1934

East Windsor 14,009	East York Twp.	Elmira 2,672	Elora 1,152	Embro 436	Erieau 273	Erie Beach 22	Essex 1,786
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
.....	17,018.18	7,159.42	1,524.54	.....	.....	.....	.....
.....	8,514.27	.....	.....	.....	.....	.....	.....
174,372.46	283,762.78	34,939.03	17,170.65	9,610.43	9,382.87	1,951.75	35,995.24
.....	.....	.....	.....	.....	.....	.....	442.55
76,203.19	79,950.50	15,439.13	7,316.65	3,039.64	1,550.23	613.17	15,011.34
60,486.73	141,189.38	12,656.94	5,854.36	2,091.28	2,372.21	680.28	10,804.74
.....	20,694.53	1,377.20	1,235.43	535.73	246.10	.....	1,548.10
89,295.42	.....	.....	.....	.....	.....	.....	.....
3,897.65	14,551.29	3,533.56	1,260.23	69.45	379.90	375.03	2,266.00
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	2,168.08	1,425.47	429.25	.....	.....	.....
404,255.45	565,680.93	77,273.36	35,787.33	15,775.78	13,931.31	3,620.23	66,067.97
68,283.89	8,207.16	60.00	365.73	1,672.60	91.05	645.95	6,741.45
.....	2,812.91	.....	7,000.00	1,000.00	.....	.....	5,000.00
49,627.07	25,666.99	221.95	573.21	632.47	378.46	295.52	1,354.66
.....	5,340.09	.....	648.27	.....	.....	.....	.....
139,261.93	137,501.58	51,067.54	24,632.20	7,183.10	3,433.22	854.37	17,634.36
.....	470.18	754.39	32.77	.....	.....	27.41	769.57
661,428.34	745,679.84	129,377.24	69,039.51	26,263.95	17,834.04	5,443.48	97,568.01
.....	.....	.....	352.63	.....	.....	.....	.....
661,428.34	745,679.84	129,377.24	69,392.14	26,263.95	17,834.04	5,443.48	97,568.01
91,657.55	245,678.60	22,926.79	2,979.43	2,754.48	4,195.71	2,412.25	18,500.64
40,036.40	51,385.24	2,648.14	543.19	135.95	.....	.....	39.00
.....	.....	684.50	.....			.....	
89,295.42	15,216.71	754.39	729.75	.....	220.00	50.34	551.48
220,989.37	312,280.55	27,013.82	4,252.37	2,890.43	4,415.71	2,462.59	19,091.12
139,261.93	137,501.58	51,067.54	24,632.20	7,183.10	3,433.22	854.37	17,634.36
53,727.22	62,889.41	17,325.15	11,763.22	5,151.64	2,058.50	395.86	12,537.71
343.79	5,076.82	.....	.....	50.00	.....	.....	527.66
193,332.94	205,467.81	68,392.69	36,395.42	12,384.74	5,491.72	1,250.23	30,699.73
57,342.45	111,389.18	14,241.71	10,020.57	4,745.52	2,687.42	887.75	3,999.36
.....	.....	.....	.....	.....	.....	.....	.....
189,763.58	116,542.30	19,729.02	18,723.78	6,243.26	5,239.19	842.91	43,777.80
247,106.03	227,931.48	33,970.73	28,744.35	10,988.78	7,926.61	1,730.66	47,777.16
661,428.34	745,679.84	129,377.24	69,392.14	26,263.95	17,834.04	5,443.48	97,568.01
30.4	51.3	33.8	9.5	15.1	30.7	53.7	23.9

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Etobicoke Twp.	Exeter	Fergus	Fonthill	Forest
Population		1,606	2,560	872	1,487
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	26,674.19	3,281.59			6,447.40
Substation equipment					
Distribution system—overhead	271,751.58	26,855.17	33,425.83	11,172.41	19,760.43
Distribution system—underground					
Line transformers	71,048.01	10,205.65	15,936.72	4,877.07	9,768.76
Meters	53,755.43	8,118.85	12,000.91	4,331.41	9,328.52
Street light equipment, regular	11,995.55	1,026.85	2,184.24	1,056.80	2,369.94
Street light equipment, ornamental	2,689.44				
Miscellaneous construction expense	4,804.24	2,111.92	958.68	3,839.65	961.54
Steam or hydraulic plant					
Old plant			2,546.59		11,042.87
Total plant	442,718.44	51,600.03	67,052.97	25,277.34	59,679.46
Bank and cash balance	200.00	6,865.11	2,421.59	700.18	4,520.21
Securities and investments		8,000.00			7,500.00
Accounts receivable	20,143.22	1,673.92	1,232.62	233.17	4,530.04
Inventories	5,616.84	1,318.57	108.37		1,815.11
Sinking fund on local debentures					
Equity in H-E.P.C. systems	106,902.55	25,838.84	32,735.24	3,286.68	18,861.78
Other assets	5,413.87		116.67	285.17	
Total assets	580,994.92	95,296.47	103,667.46	29,782.54	96,906.60
Deficit					
Total	580,994.92	95,296.47	103,667.46	29,782.54	96,906.60
Liabilities					
Debenture balance	173,269.43	7,202.67	17,361.12	15,825.56	9,545.26
Accounts payable	30,241.05	645.70	2,031.54	1,110.95	79.03
Bank overdraft	19,044.31				
Other liabilities	7,898.84	223.33	25.00	270.62	33.06
Total liabilities	230,453.63	8,071.70	19,417.66	17,207.13	9,657.35
Reserves					
For equity in H-E.P.C. systems	106,902.55	25,838.84	32,735.24	3,286.68	18,861.78
For depreciation	68,364.19	10,515.55	8,324.33	1,895.46	12,681.92
Other reserves	943.68	85.90	350.00		50.00
Total reserves	176,210.42	36,440.29	41,409.57	5,182.14	31,593.70
Surplus					
Debentures paid	92,425.97	12,797.38	24,638.88	6,674.44	24,854.74
Local sinking fund					
Operating surplus	81,904.90	37,987.10	18,201.35	718.83	30,800.81
Total surplus	174,330.87	50,784.48	42,840.23	7,393.27	55,655.55
Total liabilities, reserves and surplus	580,994.92	95,296.47	103,667.46	29,782.54	96,906.60
Percentage of net debt to total assets	48.3	11.6	27.4	64.9	12.4

"A"—Continued

Hydro Municipalities as at December 31, 1934

Galt 14,057	Georgetown 2,224	Glencoe 827	Goderich 4,394	Granton P.V.	Guelph 21,048	Hagersville 1,355	Hamilton 153,504
$ c.	$ c.	$c.	$ c.	$ c.	$ c.	$ c.	$ c.
200,965.78			13,569.89		13,380.18		929,627.85
114,053.21			34,402.48		156,527.91	864.37	1,760,103.54
232,680.97	32,105.53	20,901.48	66,469.41	4,328.07	182,124.69	20,509.07	1,197,903.94
							845,155.42
117,319.63	18,366.51	6,311.20	18,009.06	1,533.55	85,655.07	9,850.72	891,783.94
67,805.06	13,619.00	4,202.13	18,755.56	1,516.40	91,669.03	8,583.45	637,047.62
72,792.17	1,364.67	1,726.23	4,853.77	163.37	42,483.85	1,040.67	279,067.95
24,130.89	2,584.28	3,365.25	5,711.07	113.08	14,022.90	1,136.73	197,728.09
	2,209.80		14,622.15				66,832.40
829,747.71	70,249.79	36,506.29	176,393.39	7,654.47	585,863.63	41,985.01	6,805,250.75
16,015.45	930.43	4,041.02	12,367.35	2,524.87	14,138.20	6,725.17	240,858.76
	7,743.29		1,000.00	2,000.00		12,000.00	
54,683.54	3,305.88	1,625.95	5,416.48	285.53	23,013.28	360.11	377,469.77
12,636.97	167.50		1,258.08		20,847.51	25.00	158,969.98
114,396.58					45,979.69		352,448.77
343,202.53	61,884.68	12,064.89	77,619.35	5,231.62	408,030.88	51,378.73	2,509,831.45
2,174.95	504.06	20.00			2,570.78		1,377.45
1,372,857.73	144,785.63	54,258.15	274,054.65	17,696.49	1,100,443.97	112,474.02	10,446,206.93
1,372,857.73	144,785.63	54,258.15	274,054.65	17,696.49	1,100,443.97	112,474.02	10,446,206.93
291,032.56	9,882.69	7,524.40	47,709.27	2,005.60	52,500.00	2,774.24	2,789,644.46
24,741.04	322.90		4,332.85	310.79	21,423.63	73.29	255,075.24
226.00	471.98	20.00	1,964.23		2,570.78		*1,743,381.62
315,999.60	10,677.57	7,544.40	54,006.35	2,316.39	76,494.41	2,847.53	4,788,101.32
343,202.53	61,884.68	12,064.89	77,619.35	5,231.62	408,030.88	51,378.73	2,509,831.45
243,684.22	20,293.13	7,659.56	60,773.15	2,335.61	118,386.23	8,512.89	973,970.26
33,850.80			1,051.61		1,337.88		208,127.56
620,737.55	82,177.81	19,724.45	139,444.11	7,567.23	527,754.99	59,891.62	3,691,929.27
226,969.39	10,117.31	12,588.48	48,378.78	1,494.40	92,499.99	5,225.76	1,429,380.66
114,396.58					45,979.69		352,448.77
94,754.61	41,812.94	14,400.82	32,225.41	6,318.47	357,714.89	44,509.11	184,346.91
436,120.58	51,930.25	26,989.30	80,604.19	7,812.87	496,194.57	49,734.87	1,966,176.34
1,372,857.73	144,785.63	54,258.15	274,054.65	17,696.49	1,100,443.97	112,474.02	10,446,206.93
22.0	12.9	17.8	27.5	18.6	4.3	4.7	58.4

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*Includes a balance of $1,687,500.00 on purchase agreement.

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Harriston	Harrow	Hensall	Hespeler	Highgate
Population	1,321	928	697	2,798	343
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings				4,474.73	
Substation equipment	600.00			27,951.51	
Distribution system—overhead	22,186.34	16,935.28	12,370.10	30,646.77	6,383.76
Distribution system—underground					
Line transformers	7,416.42	8,992.12	4,428.42	21,030.50	2,109.25
Meters	7,184.08	5,796.50	3,448.63	12,349.59	1,750.29
Street light equipment, regular	1,198.75	851.36	612.83	7,155.90	453.91
Street light equipment, ornamental					
Miscellaneous construction expense	880.57	269.68	535.99	1,306.77	508.13
Steam or hydraulic plant					
Old plant	1,001.43		400.00		
Total plant	40,467.59	32,844.94	21,795.97	104,915.77	11,205.34
Bank and cash balance	1,156.68	4,193.18	3,622.22	8,332.95	273.58
Securities and investments			4,000.00		2,000.00
Accounts receivable	818.77	1,207.24	83.21	2,293.55	197.36
Inventories	71.81			354.35	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	21,007.34	12,915.13	9,656.41	64,440.55	6,421.85
Other assets				5.00	
Total assets	63,522.19	51,160.49	39,157.81	180,342.17	20,098.13
Deficit					
Total	63,522.19	51,160.49	39,157.81	180,342.17	20,098.13
Liabilities					
Debenture balance	9,475.78	7,700.37	6,664.14	33,015.99	
Accounts payable	1,642.02		784.44	1,284.98	
Bank overdraft					
Other liabilities		414.26	94.50	5.00	10.00
Total liabilities	11,117.80	8,114.63	7,543.08	34,305.97	10.00
Reserves					
For equity in H-E.P.C. systems	21,007.34	12,915.13	9,656.41	64,440.55	6,421.85
For depreciation	6,442.67	2,726.12	6,473.73	12,889.74	3,680.64
Other reserves				120.35	
Total reserves	27,450.01	15,641.25	16,130.14	77,450.64	10,102.49
Surplus					
Debentures paid	16,342.25	4,299.63	5,335.86	44,554.52	5,000.00
Local sinking fund					
Operating surplus	8,612.13	23,104.98	10,148.73	24,031.04	4,985.64
Total surplus	24,954.38	27,404.61	15,484.59	68,585.56	9,985.64
Total liabilities, reserves and surplus	63,522.19	51,160.49	39,157.81	180,342.17	20,098.13
Percentage of net debt to total assets	26.2	21.2	25.6	29.6	0.1

"A"—Continued

Hydro Municipalities as at December 31, 1934

Humberstone 2,442	Ingersoll 5,104	Jarvis 531	Kingsville 2,354	Kitchener 31,252	Lambeth P.V.	La Salle 600	Leamington 5,004
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
....	15,064.45	....	7,774.09	179,685.67	....	....	16,387.58
....	33,283.83	....	....	218,733.96	....	....	7,085.62
26,149.88	55,398.44	9,455.40	31,595.63	320,148.25	6,951.10	19,420.66	50,358.57
....	....	....	....	40,355.24	....	....	11,986.90
9,181.25	28,042.19	3,080.21	13,641.91	174,977.79	1,883.12	6,716.60	24,297.65
7,797.95	24,820.88	2,453.52	13,477.73	183,274.02	2,301.46	4,174.22	22,925.79
884.80	3,980.93	846.99	1,439.82	65,326.54	269.16	946.49	1,380.13
....	4,597.59	....	19,200.00	88,371.70	....	....	15,178.49
3,127.57	10,725.98	689.20	1,123.41	19,004.15	300.71	1,510.69	1,224.67
....	....	....	....	....	....	....	....
....	19,098.54	....	....	52,363.91	....	....	....
47,141.45	195,012.83	16,525.32	88,252.59	1,342,241.23	11,705.55	32,768.66	150,825.40
1,836.06	....	4,168.22	4,473.34	75.00	523.20	8,365.51	14,553.73
....	11,716.57	....	8,000.00	15,000.00	1,000.00	....	11,000.00
591.48	2,372.30	70.39	378.49	49,310.55	100.67	1,875.65	294.06
....	1,062.73	....	....	9,727.17	....	....	....
....	72,631.06	....	....	....	....	....	....
11,183.77	115,594.19	8,786.49	23,734.07	781,227.72	5,913.61	7,853.54	44,229.84
1,245.41	1,044.53	....	2,166.57	1,153.68	60.00	1,447.10	....
61,998.17	399,434.21	29,550.42	127,005.06	2,198,735.35	19,303.03	52,310.46	220,903.03
....	....	....	....	....	....	....	....
61,998.17	399,434.21	29,550.42	127,005.06	2,198,735.35	19,303.03	52,310.46	220,903.03
17,900.00	79,800.00	6,108.46	27,914.80	175,060.79	....	10,658.01	30,800.92
....	11,042.08	420.74	1,719.49	47,837.91	....	1,913.27	1,186.56
....	734.69	....	....	7,681.74	....	....	....
995.27	5,642.12	....	20,920.00	89,525.38	60.00	427.06	17,605.05
18,895.27	97,218.89	6,529.20	50,554.29	320,105.82	60.00	12,998.34	49,592.53
11,183.77	115,594.19	8,786.49	23,734.07	781,227.72	5,913.61	7,853.54	44,229.84
2,669.45	15,715.79	2,585.52	16,199.17	268,144.95	3,195.95	6,079.44	22,308.90
....	857.40	....	664.42	27,159.14	....	1,000.62	800.14
13,853.22	132,167.38	11,372.01	40,597.66	1,076,531.81	9,109.56	14,933.60	67,338.88
14,100.00	....	4,391.54	5,585.20	337,089.21	4,000.00	4,841.99	17,199.08
....	72,631.06	....	....	....	....	....	....
15,149.68	97,416.88	7,257.67	30,267.91	465,008.51	6,133.47	19,536.53	86,772.54
29,249.68	170,047.94	11,649.21	35,853.11	802,097.72	10,133.47	24,378.52	103,971.62
61,998.17	399,434.21	29,550.42	127,005.06	2,198,735.35	19,303.03	52,310.46	220,903.03
37.2	9.2	31.0	37.3	16.3	0	29.2	21.4

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Listowel	London	London Twp.	Long Branch	Lucan
Population	2,775	73,726		3,550	528
	$ c.	$ c.	$ c.	$ c.	$ c.
Assets					
Lands and buildings	1,457.39	447,434.86			
Substation equipment		941,347.33			
Distribution system—overhead	39,070.65	783,202.09	17,454.12	52,163.07	10,577.48
Distribution system—underground	2,897.25	293,489.23			
Line transformers	17,556.07	290,893.97	5,734.63	11,950.28	4,131.49
Meters	16,326.87	329,931.51	4,019.50	17,126.43	3,154.40
Street light equipment, regular	1,853.82	67,797.91	861.36	4,212.21	430.15
Street light equipment, ornamental	1,348.66	84,746.73			
Miscellaneous construction expense	2,328.88	87,153.05	514.93	1,220.51	617.27
Steam or hydraulic plant					
Old plant	4,745.30		1,733.80		2,860.45
Total plant	87,584.89	3,325,996.68	30,318.34	86,672.50	21,771.24
Bank and cash balance	2,976.99	12,726.31	1,291.82		3,757.88
Securities and investments	7,000.00		4,000.00		5,000.00
Accounts receivable	1,551.04	307,602.23	1,378.16	2,049.41	8.95
Inventories		66,419.73			
Sinking fund on local debentures		349,490.78			
Equity in H-E.P.C. systems	45,689.81	1,416,043.89	9,502.15	8,831.29	12,242.49
Other assets		563.68	126.97	2,540.61	
Total assets	144,802.73	5,478,843.30	46,617.44	100,093.81	42,780.56
Deficit					
Total	144,802.73	5,478,843.30	46,617.44	100,093.81	42,780.56
Liabilities					
Debenture balance	5,869.18	852,163.12	10,148.52	23,364.48	4,052.53
Accounts payable	22.99	101,911.76	68.80	12,118.41	136.49
Bank overdraft					
Other liabilities	1,567.05	85,310.41	126.97	2,559.09	201.22
Total liabilities	7,459.22	1,039,385.29	10,344.29	38,041.98	4,390.24
Reserves					
For equity in H-E.P.C. systems	45,689.81	1,416,043.89	9,502.15	8,831.29	12,242.49
For depreciation	29,399.34	899,601.37	5,016.81	15,361.50	7,800.45
Other reserves		81,703.45		423.00	
Total reserves	75,089.15	2,397,348.71	14,518.96	24,615.79	20,042.94
Surplus					
Debentures paid	37,320.71	729,736.88	8,851.48	16,940.12	7,161.09
Local sinking fund		349,490.78			
Operating surplus	24,933.65	962,881.64	12,902.71	20,495.92	11,186.29
Total surplus	62,254.36	2,042,109.30	21,754.19	37,436.04	18347.38
Total liabilities, reserves and surplus	144,802.73	5,478,843.30	46,617.44	100,093.81	42,780.56
Percentage of net debt to total assets	6.3	16.6	27.6	41.7	14.3

"A"—Continued

Hydro Municipalities as at December 31, 1934

Lynden P.V.	Markham 1,060	Merlin P.V.	Merritton 2,487	Milton 1,804	Milverton 1,002	Mimico 6,696	Mitchell 1,497
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
241.18			2,951.67		237.20	17,077.41	22,562.48
			32,689.04	11,868.94		38,461.02	21,287.83
4,774.11	15,781.10	8,062.22	34,946.51	20,422.74	11,431.90	75,520.27	29,015.33
2,166.63	8,109.35	3,399.23	7,928.65	13,944.73	7,565.80	31,989.52	8,818.29
1,627.24	5,874.31	2,085.88	9,699.54	13,239.85	5,082.70	28,131.13	11,932.41
340.66	750.76	555.64	4,676.11	1,282.36	737.16	7,747.29	3,698.59
193.57	1,944.18	455.36	2,863.64	4,094.99	713.67	4,638.61	774.17
							1500.00
		241.85		3,092.54			
9,343.39	32,459.70	14,800.18	95,755.16	67,946.15	25,768.43	203,565.25	99,589.10
643.76	2,466.99	2,670.96	9,583.21	5,772.02	479.83	5,328.34	3,344.28
	2,000.00	6,000.00		12,000.00	2,000.00		1,000.00
500.18	575.53	112.48	3,615.31	3,476.36	2,213.81	5,795.55	5,126.77
				3,785.18			3,048.25
9,126.37	10,457.40	7,831.92	62,634.58	67,705.64	29,573.74	83,618.27	27,708.14
						5,234.53	
19,613.70	47,959.62	31,415.54	171,588.26	160,685.35	60,035.81	303,541.94	139,816.54
19,613.70	47,959.62	31,415.54	171,588.26	160,685.35	60,035.81	303,541.94	139,816.54
2,503.19	849.76	7,036.00	18,477.56	7,573.01	751.96	77,599.06	
257.00	977.13	57.90	2,595.12	145.71	1,575.08	1,826.50	645.93
	110.00	25.00		166.85		5,234.53	126.50
2,760.19	1,936.89	7,118.90	21,072.68	7,885.57	2,327.04	84,660.09	772.43
9,126.37	10,457.40	7,831.92	62,634.58	67,705.64	29,573.74	83,618.27	27,708.14
2,725.13	5,125.97	2,518.45	7,619.91	15,686.01	5,535.26	45,641.89	36,498.71
				1,471.57	1,668.04	2,816.45	900.00
11,851.50	15,583.37	10,350.37	70,254.49	84,863.22	36,777.04	132,076.61	65,106.85
1,991.81	10,523.87	6,328.21	13,708.65	25,473.40	8,748.04	49,400.94	22,295.22
3,010.20	19,915.49	7,618.06	66,552.44	42,463.16	12,183.69	37,404.30	51,642.04
5,002.01	30,439.36	13,946.27	80,261.09	67,936.56	20,931.73	86,805.24	73,937.26
19,613.70	47,959.62	31,415.54	171,588.26	160,685.35	60,035.81	303,541.94	139,816.54
26.3	5.2	30.2	19.3	8.5	7.6	38.5	0.7

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Moorefield	Mount Brydges	Newbury	New Hamburg	New Toronto
Population	P.V.	P.V.	256	1,457	7,484
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings				2,513.19	43,745.98
Substation equipment				1,167.55	
Distribution system—overhead	2,980.96	6,409.60	6,422.17	23,725.89	79,577.21
Distribution system—underground					8,605.69
Line transformers	1,012.17	1,967.97	1,797.86	6,512.94	30,786.47
Meters	1,221.66	2,269.66	1,193.74	8,982.53	29,514.45
Street light equipment, regular	295.88	689.49	817.42	2,095.68	10,217.86
Street light equipment, ornamental					
Miscellaneous construction expense	348.35	296.84	486.13	958.73	7,432.07
Steam or hydraulic plant					
Old plant			348.22	5,242.56	
Total plant	5,859.02	11,633.56	11,065.54	51,199.07	209,879.73
Bank and cash balance	2,127.18	2,445.27	1,042.53	2,276.68	2,733.18
Securities and investments		3,000.00			
Accounts receivable	58.63	797.17	880.62	1,132.22	20,203.92
Inventories				804.63	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	3,931.96	4,460.85	2,767.14	31,661.77	259,357.33
Other assets		86.94			1,371.22
Total assets	11,976.79	22,423.79	15,755.83	87,074.37	493,545.38
Deficit					
Total	11,976.79	22,423.79	15,755.83	87,074.37	493,545.38
LIABILITIES					
Debenture balance	1,032.37	2,188.65	3,900.00	5,943.32	3,699.00
Accounts payable		79.72	30.00		9,240.40
Bank overdraft					
Other liabilities		84.90	25.00	173.50	5,371.22
Total liabilities	1,032.37	2,353.27	3,955.00	6,116.82	18,310.62
RESERVES					
For equity in H-E.P.C. systems	3,931.96	4,460.85	2,767.14	31,661.77	259,357.33
For depreciation	2,228.76	2,422.30	2,575.68	11,347.65	45,170.34
Other reserves				101.29	3,076.57
Total reserves	6,160.72	6,883.15	5,342.82	43,110.71	307,604.24
SURPLUS					
Debentures paid	3,467.63	2,031.35	5,854.39	11,785.76	4,301.00
Local sinking fund					
Operating surplus	1,316.07	11,156.02	603.62	26,061.08	163,329.52
Total surplus	4,783.70	13,187.37	6,458.01	37,846.84	167,630.52
Total liabilities, reserves and surplus	11,976.79	22,423.79	15,755.83	87,074.37	493,545.38
Percentage of net debt to total assets	12.8	13.1	30.4	11.0	7.8

"A"—Continued

Hydro Municipalities as at December 31, 1934

Niagara Falls 18,060	Niagara-on-the-Lake 1,614	North York Twp.	Norwich 1,196	Oil Springs 462	Otterville P.V.	Palmerston 1,600	Paris 4,297
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
132,324.59	2,307.35	28,248.83	4,638.76	1,453.46	...	...	8,426.83
229,660.23	16,048.36	...	...	...	...	691.88	27,720.70
190,698.67	28,272.74	335,164.78	11,113.94	12,973.70	7,121.72	26,503.72	52,092.83
...	...	...	...	...	...	...	...
160,604.56	7,666.78	82,776.87	6,180.85	5,670.91	3,943.30	9,841.85	19,712.59
107,152.32	8,030.45	42,796.46	6,799.26	3,424.65	2,410.45	7,327.72	19,393.87
118,104.12	1,230.44	156.00	4,685.64	308.24	1,408.96	2,429.36	14,026.52
...	...	13,491.21	...	...	...	...	...
11,598.32	2,064.87	19,357.44	1,522.77	2,417.13	142.00	778.43	810.78
...	...	...	...	...	...	...	...
20,742.69	...	...	3,509.82	...	...	4,018.71	...
970,885.50	65,620.99	521,991.59	38,451.04	26,248.09	15,026.43	51,591.67	142,184.12
28,546.60	490.18	4,593.50	1,771.58	4,390.15	2,830.14	1,532.38	3,329.23
...	...	...	3,500.00	2,242.89	...	...	28,500.00
11,652.93	3,749.97	7,050.14	2,062.86	407.43	882.61	1,278.85	758.37
11,423.83	1,762.60	64.48	1,482.62	73.69	...	346.12	...
...	...	...	...	...	...	...	...
356,603.43	18,308.81	60,834.26	23,485.72	16,048.30	5,127.05	26,653.44	71,286.89
26,733.01	73.37	5,806.19	165.40	...	15.00	...	...
1,405,845.30	90,005.92	600,340.16	70,919.22	49,410.55	23,881.23	81,402.46	246,058.61
...	...	...	...	...	...	...	...
1,405,845.30	90,005.92	600,340.16	70,919.22	49,410.55	23,881.23	81,402.46	246,058.61
325,605.23	20,356.68	355,032.55	5,431.38	3,749.41	370.18	3,462.22	8,726.32
45,205.72	909.35	9,956.03	370.00	1,499.25	210.35	...	575.05
...	...	...	...	...	...	...	...
16,111.31	70.00	19,297.40	165.40	...	15.00	262.50	...
386,922.26	21,336.03	384,285.98	5,966.78	5,248.66	595.53	3,724.72	9,301.37
356,603.43	18,308.81	60,834.26	23,485.72	16,048.30	5,127.05	26,653.44	71,286.89
152,165.71	9,934.64	63,328.89	5,326.49	6,822.57	4,394.57	6,799.54	63,647.08
8,784.94	363.00	...	993.87	...	...	471.11	175.00
517,554.08	28,606.45	124,163.15	29,806.08	22,870.87	9,521.62	33,924.09	135,108.97
364,637.77	16,144.74	87,989.32	8,324.62	12,971.90	4,129.82	23,537.78	83,273.68
...	...	...	...	...	...	...	...
136,731.19	23,918.70	3,901.71	26,821.74	8,319.12	9,634.26	20,215.87	18,374.59
501,368.96	40,063.44	91,891.03	35,146.36	21,291.02	13,764.08	43,753.65	101,648.27
1,405,845.30	90,005.92	600,340.16	70,919.22	49,410.55	23,881.23	81,402.46	246,058.61
37.0	30.0	70.5	12.3	15.7	3.1	6.8	5.3

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Parkhill	Petrolia	Plattsville	Point Edward	Port Colborne
Population	1,021	2,715	P.V.	1,336	5,417
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings		900.00			22,561.01
Substation equipment		2,403.55			
Distribution system—overhead	16,039.71	43,548.17	4,116.10	21,284.62	89,678.99
Distribution system—underground					
Line transformers	4,239.63	26,243.59	1,890.66	7,017.98	24,486.11
Meters	4,284.93	14,903.26	1,921.31	5,162.40	22,209.98
Street light equipment, regular	898.23	4,849.35	147.15	3,091.41	4,549.26
Street light equipment, ornamental					16,611.59
Miscellaneous construction expense	1,347.67	5,476.92	535.92	503.14	7,054.38
Steam or hydraulic plant					
Old plant		3,389.94			9,929.60
Total plant	26,810.17	101,714.78	8,611.14	37,059.55	197,080.92
Bank and cash balance	1,133.62	5,781.95	1,291.75	1,442.15	15.00
Securities and investments		8,400.00		13,000.00	1,500.00
Accounts receivable	319.34	5,805.16	78.88	4,054.58	14,233.95
Inventories		951.58			4,003.93
Sinking fund on local debentures					
Equity in H-E.P.C. systems	11,259.93	63,863.94	5,589.37	29,386.60	55,085.73
Other assets		692.50		164.00	
Total assets	39,523.06	187,209.91	15,571.14	85,106.88	271,919.53
Deficit					
Total	39,523.06	187,209.91	15,571.14	85,106.88	271,919.53
LIABILITIES					
Debenture balance	5,013.74	21,885.89	2,630.78	6,992.78	86,319.90
Accounts payable	245.01			2,818.24	3,869.62
Bank overdraft					946.96
Other liabilities	70.00	692.50		164.00	20,310.30
Total liabilities	5,328.75	22,578.39	2,630.78	9,975.02	111,446.78
RESERVES					
For equity in H-E.P.C. systems	11,259.93	63,863.94	5,589.37	29,386.60	55,085.73
For depreciation	5,772.97	29,452.51	3,079.33	9,683.57	34,996.83
Other reserves		310.61		264.98	1,630.70
Total reserves	17,032.90	93,627.06	8,668.70	39,335.15	91,713.26
SURPLUS					
Debentures paid	9,616.28	28,114.11	2,606.22	10,007.22	59,680.10
Local sinking fund					
Operating surplus	7,545.13	42,890.35	1,665.44	25,789.49	9,079.39
Total surplus	17,161.41	71,004.46	4,271.66	35,796.71	68,759.49
Total liabilities, reserves and surplus	39,523.06	187,209.91	51,571.14	85,106.88	271,919.53
Percentage of net debt to total assets	18.9	18.3	26.4	17.9	47.3

"A"—Continued

Hydro Municipalities as at December 31, 1934

Port Credit 1,650	Port Dalhousie 1,495	Port Dover 1,692	Port Rowan 692	Port Stanley 742	Preston 6,189	Princeton P.V.	Queenston P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
675.00	.....	248.75	.....	1,570.80	.....	.....	.....
.....	.....	.....	.....	.....	50,727.43	.....	.....
24,758.35	18,600.65	29,956.67	9,220.72	21,491.82	90,842.70	4,233.15	7,898.91
.....	.....	.....	.....	.....	.....	.....	.....
9,881.98	9,861.19	10,257.03	1,435.32	12,086.52	47,728.03	2,473.48	2,219.20
9,266.13	9,385.06	7,313.74	1,815.68	9,580.83	38,634.89	1,223.65	1,568.03
4,922.71	1,041.19	2,673.13	863.49	1,686.62	5,442.53	185.35	422.43
.....	.....	.....	.....	.....	.....	.....	.....
864.49	2,179.34	2,477.44	699.53	6,272.72	8,002.06	64.35	2,081.11
.....	.....	.....	.....	.....	.....	.....	.....
.....	6,018.38	.....	.....	577.51	32,126.75	.....	.....
50,368.66	47,085.81	52,926.76	14,034.74	53,266.82	273,504.39	8,179.98	14,189.68
3,179.83	1,108.30	5,637.98	.....	4,504.92	22,116.29	3,372.43	53.27
.....	3,000.00	.....	.....	3,000.00	6,000.00	.....	.....
2,581.99	2,514.20	2,863.30	377.83	1,539.97	15,694.50	730.90	256.85
.....	.....	.....	49.19	.....	287.56	.....	.....
.....	3,075.30	.....	.....	.....	.....	.....	.....
22,366.52	19,140.76	14,397.07	3,876.69	24,446.66	168,456.92	5,171.78	4,112.51
.....	390.21	20.00	.....	15.01	363.50	.....	.....
78,497.00	76,314.58	75,845.11	18,338.45	86,773.38	486,423.16	17,455.09	18,612.31
.....	.....	.....	4,986.36	.....	.....	.....	.....
78,497.00	76,314.58	75,845.11	23,324.81	86,773.38	486,423.16	17,455.09	18,612.31
7,588.22	8,662.28	9,285.10	8,490.00	6,543.70	46,181.10	1,783.26	5,142.72
1,803.98	.....	2,080.87	6,257.60	.....	8,465.97	100.37	3.69
.....	.....	.....	220.61	.....	.....	.....	.....
485.00	83.00	680.85	.....	15.01	363.50	.....	.....
9,877.20	8,745.28	12,046.82	14,968.21	6,558.71	55,010.57	1,883.63	5,146.41
22,366.52	19,140.76	14,397.07	3,876.69	24,446.66	168,456.92	5,171.78	4,112.51
14,433.13	5,228.86	8,310.62	1,969.91	10,657.07	101,457.88	2,541.98	2,878.45
198.71	926.31	.....	.....	.....	412.46	.....	.....
36,998.36	25,295.93	22,707.69	5,846.60	35,103.73	270,327.26	7,713.76	6,990.96
6,911.78	13,837.72	19,714.90	2,510.00	12,406.30	106,618.90	1,766.74	4,357.28
.....	3,075.30	.....	.....	.....	.....	.....	.....
24,709.66	25,360.35	21,375.70	.....	32,704.64	54,466.43	6,090.96	2,117.66
31,621.44	42,273.37	41,090.60	2,510.00	45,110.94	161,085.33	7,857.70	6,474.94
78,497.00	76,314.58	75,845.11	23,324.81	86,773.38	486,423.16	17,455.09	18,612.31
17.6	10.5	19.6	103.5	10.5	17.3	15.3	37.6

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Richmond Hill	Ridgetown	Riverside	Rockwood	Rodney
Population	1,299	1,914	4,975	P.V.	748
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings			2,379.31	79.00	
Substation equipment	600.00	1,024.24			
Distribution system—overhead	10,573.07	21,466.69	91,478.45	7,565.39	10,876.25
Distribution system—underground					
Line transformers	8,549.95	9,768.42	32,326.02	2,481.27	2,890.98
Meters	4,889.98	9,458.46	22,599.21	2,832.57	3,448.34
Street light equipment, regular	1,334.77	3,549.96		679.03	631.29
Street light equipment, ornamental		1,431.73	17,030.71		
Miscellaneous construction expense	42.00	2,086.95	4,805.07	450.52	774.44
Steam or hydraulic plant					
Old plant		5,088.46			700.00
Total plant	25,989.77	53,874.91	170,618.77	14,087.78	19,321.30
Bank and cash balance	5,667.87			44.91	2,880.57
Securities and investments		12,000.00			3,000.00
Accounts receivable	894.09	445.21	16,849.60	253.65	161.16
Inventories	135.46	777.47		130.09	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	9,707.40	25,643.35	48,821.25	7,008.90	7,797.20
Other assets	206.18			79.47	
Total assets	42,600.77	92,740.94	236,289.62	21,604.80	33,160.23
Deficit					
Total	42,600.77	92,740.94	236,289.62	21,604.80	33,160.23
LIABILITIES					
Debenture balance	3,440.31	6,016.62	49,901.70	2,261.64	5,040.68
Accounts payable	450.27	456.36	10,210.65		557.73
Bank overdraft		506.51	5,477.79		
Other liabilities	206.18	1,816.73	17,030.71	76.00	130.00
Total liabilities	4,096.76	8,796.22	82,620.85	2,337.64	5,728.41
RESERVES					
For equity in H-E.P.C. systems	9,707.40	25,643.35	48,821.25	7,008.90	7,797.20
For depreciation	1,627.98	12,240.16	29,857.77	4,480.31	1,805.72
Other reserves			68.27		
Total reserves	11,335.38	37,883.51	78,747.29	11,489.21	9,602.92
SURPLUS					
Debentures paid	8,759.69	13,439.37	32,598.30	2,238.36	3,459.32
Local sinking fund					
Operating surplus	18,408.94	32,621.84	42,323.18	5,539.59	14,369.58
Total surplus	27,168.63	46,061.21	74,921.48	7,777.95	17,828.90
Total liabilities, reserves and surplus	42,600.77	92,740.94	236,289.62	21,604.80	33,160.23
Percentage of net debt to total assets	12.5	11.2	38.4	16.0	22.6

"A"—Continued

Hydro Municipalities as at December 31, 1934

St. Catharines 26,161	St. Clair Beach 81	St. George P.V.	St. Jacobs P.V.	St. Marys 4,023	St. Thomas 16,072	Sandwich 10,559
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
50,305.64				3,000.00	73,228.59	541.70
109,157.83				26,975.49	110,146.39	4,097.56
209,618.58	7,918.75	5,949.09	6,501.68	56,558.66	112,524.31	107,934.80
					36,690.67	
141,218.65	2,726.36	2,729.42	2,539.38	18,978.89	54,085.43	47,310.59
89,822.50	1,414.13	2,890.56	2,692.61	21,969.91	70,516.88	49,923.85
18,577.59		286.41	390.26	5,203.64	21,259.32	11,665.76
29,486.71					3,693.04	51,239.13
27,654.83	149.27	374.18	460.55	3,533.19	8,181.86	7,502.73
17,807.89				20,696.85		4,148.96
693,650.22	12,208.51	12,229.66	12,584.48	156,916.63	490,326.49	284,365.08
6,537.67			328.92	1,385.42	8,644.19	18,163.71
			3,000.00		43,206.81	21,659.37
36,893.34	1,635.73	557.32	80.66	3,634.25	15,376.64	8,040.54
443.37				2,818.61	8,005.38	334.27
73,048.00				1,488.42		
325,288.97	3,989.36	8,522.48	8,820.18	84,613.22	293,235.39	140,799.88
160.03		107.50		63.37	9,070.58	250.00
1,136,021.60	17,833.60	21,416.96	24,814.24	250,919.92	867,865.48	473,612.85
				447.58		
1,136,021.60	17,833.60	21,416.96	24,814.24	251,367.50	867,865.48	473,612.85
198,949.97	3,306.64	3,116.13	1,354.13	38,624.69	1,762.44	91,031.68
25,568.44	138.33		178.13	1,573.19	2,230.82	927.83
	884.28	316.53				
29,792.71		107.50		147.50	12,763.62	62,121.27
254,311.12	4,329.25	3,540.16	1,532.26	40,345.38	16,756.88	154,080.78
325,288.97	3,989.36	8,522.48	8,820.18	84,613.22	293,235.39	140,799.88
138,303.28	2,630.68	2,191.74	3,110.05	48,638.10	110,708.87	42,541.44
8,017.10	12.67			660.05	494.51	450.74
471,609.35	6,632.71	10,714.22	11,930.23	133,911.37	404,438.77	183,792.06
103,072.94	3,034.81	2,883.87	4,645.87	75,622.33	137,181.63	54,541.35
73,048.00				1,488.42		
233,980.19	3,836.83	4,278.71	6,705.88		309,488.20	81,198.66
410,101.13	6,871.64	7,162.58	11,351.75	77,110.75	446,669.83	135,740.01
1,136,021.60	17,833.60	21,416.96	24,814.24	251,367.50	867,865.48	473,612.85
21.4	31.2	27.5	9.6	23.6	2.9	36.5

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Sarnia	Scarboro' Twp.	Seaforth	Simcoe	Spring-field
Population	17,620		1,697	5,174	372
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	112,246.86	16,585.49	1,301.70	8,442.41	
Substation equipment	199,845.48	301.95	5,999.16	22,906.67	
Distribution system—overhead	216,977.95	272,919.53	28,114.36	49,452.44	7,996.00
Distribution system—underground				1,412.24	
Line transformers	87,297.27	60,697.75	10,345.10	24,655.44	2,374.19
Meters	72,313.60	64,532.49	9,197.25	24,558.46	2,017.85
Street light equipment, regular	25,311.08	19,810.03	1,414.55	5,600.67	558.91
Street light equipment, ornamental	7,482.11			3,500.00	
Miscellaneous construction expense	23,873.31	2,733.37	509.46	5,783.81	685.08
Steam or hydraulic plant					
Old plant	55,445.72			927.92	
Total plant	800,793.38	437,580.61	56,881.58	147,240.06	13,632.03
Bank and cash balance		56,195.90	3,148.46	19,594.87	370.44
Securities and investments		2,680.00	100.00		4,500.00
Accounts receivable	42,154.09	11,779.80	4,478.00	2,358.77	842.70
Inventories	18,830.31		1,901.60	2,485.68	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	367,445.02	97,483.60	40,569.35	56,252.93	5,819.93
Other assets	3,925.50				52.00
Total assets	1,233,148.30	605,719.91	107,078.99	227,932.31	25,217.10
Deficit					
Total	1,233,148.30	605,719.91	107,078.99	227,932.31	25,217.10
LIABILITIES					
Debenture balance	107,841.95	179,243.58		51,834.15	3,432.99
Accounts payable	327.20	41,895.95	7.47	699.77	246.82
Bank overdraft	3,577.37				
Other liabilities	13,797.17	27,035.03	35.00	3,667.00	52.00
Total liabilities	125,543.69	248,174.56	42.47	56,200.92	3,731.81
RESERVES					
For equity in H-E.P.C. systems	367,445.02	97,483.60	40,569.35	56,252.93	5,819.93
For depreciation	131,633.77	70,994.94	19,447.13	19,715.60	2,680.06
Other reserves	1,151.71	630.00	1,106.96		
Total reserves	500,230.50	169,108.54	61,123.44	75,968.53	8,499.99
SURPLUS					
Debentures paid	230,158.05	111,324.70	25,000.00	23,600.75	6,067.01
Local sinking fund					
Operating surplus	377,216.06	77,112.11	20,913.08	72,162.11	6,918.29
Total surplus	607,374.11	188,436.81	45,913.08	95,762.86	12,985.30
Total liabilities, reserves and surplus	1,233,148.30	605,719.91	107,078.99	227,932.31	25,217.10
Percentage of net debt to total assets	13.8	48.8	0.0	31.3	19.0

"A"—Continued

Hydro Municipalities as at December 31, 1934

Stamford Twp.	Stouffville 1,174	Stratford 18,673	Strathroy 2,887	Sutton 806	Tavistock 1,050	Tecumseh 2,423	Thamesford P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
7,196.71	....	138,790.05	8,741.01	....	234.02	....	....
37,384.60	....	121,684.65	23,219.34	....	....	....	....
126,377.62	12,679.06	153,642.29	47,875.29	20,019.67	13,273.34	34,797.28	7,701.83
....	....	....	....	....	....	....	....
43,741.71	4,160.67	94,013.60	19,925.16	7,097.85	6,251.28	10,462.61	2,625.63
31,021.39	4,284.51	82,120.82	14,619.35	5,633.71	4,786.61	10,393.16	2,582.79
9,303.43	1,604.52	21,892.10	5,814.75	1,712.28	997.66	....	290.65
....	....	....	....	....	....	4,760.95	....
9,578.53	472.46	18,012.56	2,158.52	1,600.13	573.65	1,299.03	330.89
....	....	....	....	....	....	....	....
13,743.66	3,866.37	31,520.00	12,343.15	675.00	....	....	....
278,347.65	27,067.59	661,676.07	134,696.57	36,738.64	26,116.56	61,713.03	13,531.79
2,827.15	3,416.19	54,212.54	9,357.97	1,940.66	1,897.25	....	919.22
....	5,000.00	21,900.00	5,000.00	....	3,596.30	....	7,500.00
15,339.81	148.82	18,237.31	2,908.93	1,301.92	1,438.68	5,721.36	468.92
7,625.43	30.94	9,404.33	2,404.92	44.20	....	....	....
....	....	226,182.93	....	....	....	....	....
54,280.79	8,912.62	375,971.07	52,620.90	8,303.72	26,989.11	14,944.13	10,643.46
5,043.16	....	2,825.21	566.00	52.30	....	70.12	40.00
363,463.99	44,576.16	1,370,409.46	207,555.29	48,381.44	60,037.90	82,448.64	33,103.39
....	....	....	....	....	....	....	....
363,463.99	44,576.16	1,370,409.46	207,555.29	48,381.44	60,037.90	82,448.64	33,103.39
159,900.62	5,032.43	390,000.00	32,913.10	14,870.89	3,459.44	13,384.83	1,443.24
12,444.01	18.11	805.61	....	2,375.13	115.83	5,600.78	....
....	....	....	....	....	....	3,175.17	....
4,131.95	....	2,825.21	566.00	52.30	....	4,760.95	40.00
176,476.58	5,050.54	393,630.82	33,479.10	17,298.32	3,575.27	26,921.73	1,483.24
54,280.79	8,912.62	375,971.07	52,620.90	8,303.72	26,989.11	14,944.13	10,643.46
27,890.67	2,576.34	228,063.91	24,146.62	5,539.72	8,226.86	11,433.86	4,930.18
2,544.77	....	2,948.88	347.43	....	....	136.50	....
84,716.23	11,488.96	606,983.86	77,114.95	13,843.44	35,215.97	26,514.49	15,573.64
80,377.55	13,507.84	65,800.00	33,318.90	11,129.11	2,540.56	12,615.17	3,914.79
....	....	226,182.93	....	....	....	....	....
21,893.63	14,528.82	77,811.85	63,642.34	6,110.57	18,706.10	16,397.25	12,131.72
102,271.18	28,036.66	369,794.78	96,961.24	17,239.68	21,246.66	29,012.42	16,046.51
363,463.99	44,576.16	1,370,409.46	207,555.29	48,381.44	60,037.90	82,448.64	33,103.39
57.0	14.2	21.5	21.5	43.2	10.8	35.3	6.6

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Thamesville	Thedford	Thorndale	Thorold	Tilbury
Population	763	572	P.V.	4,945	1,897
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	681.69			9,892.59	969.46
Substation equipment					
Distribution system—overhead	12,045.47	9,267.79	3,288.86	31,830.00	15,590.08
Distribution system—underground					
Line transformers	5,160.49	3,268.91	1,559.98	16,257.73	12,550.67
Meters	3,836.81	2,206.01	1,747.46	20,305.91	6,952.78
Street light equipment, regular	1,379.42	885.46	181.19	2,860.49	982.66
Street light equipment, ornamental					
Miscellaneous construction expense	771.15	1,600.41	310.45	4,699.73	1,705.43
Steam or hydraulic plant				13,244.74	
Old plant	4,445.68	433.78			3,049.47
Total plant	28,320.71	17,662.36	7,087.94	99,091.19	41,800.55
Bank and cash balance	3,245.31	1,416.71	521.40	7,251.75	2,369.19
Securities and investments	6,000.00	1,000.00			10,000.00
Accounts receivable	1,231.90	241.24	525.48	7,575.43	349.69
Inventories				216.69	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	10,545.78	5,462.05	5,593.83	52,920.28	27,410.33
Other assets			23.50		3.51
Total assets	49,343.70	25,782.36	13,752.15	167,055.34	81,933.27
Deficit					
Total	49,343.70	25,782.36	13,752.15	167,055.34	81,933.27
LIABILITIES					
Debenture balance	3,581.91	8,030.48	1,341.70		5,986.44
Accounts payable	25.24	61.82	79.70	1,048.48	51.00
Bank overdraft					
Other liabilities	155.00	23.00	23.50	1,627.50	
Total liabilities	3,762.15	8,115.30	1,444.90	2,675.98	6,037.44
RESERVES					
For equity in H-E.P.C. systems	10,545.78	5,462.05	5,593.83	52,920.28	27,410.33
For depreciation	6,648.61	2,466.53	2,876.99	24,977.01	9,858.90
Other reserves			100.00		
Total reserves	17,194.39	7,928.58	8,570.82	77,897.29	37,269.23
SURPLUS					
Debentures paid	7,605.89	8,469.52	1,744.78	5,000.00	8,013.56
Local sinking fund					
Operating surplus	20,781.27	1,268.96	1,991.65	81,482.07	30,613.04
Total surplus	28,387.16	9,738.48	3,736.43	86,482.07	38,626.60
Total liabilities, reserves and surplus	49,343.70	25,782.36	13,752.15	167,055.34	81,933.27
Percentage of net debt to total assets	9.7	39.9	17.7	2.3	11.1

"A"—Continued

Hydro Municipalities as at December 31, 1934

Tillson-burg 3,380	Toronto 626,674	Toronto Twp.	Trafalgar Twp. Area No. 1	Trafalgar Twp. Area No. 2	Walkerville 10,458	Wallaceburg 4,457
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
4,824.27	5,413.450.99	6,366.13	......	......	147,518.53	37,746.29
13,937.52	14,984,220.87	......	......	......	155,069.52	9,651.80
41,227.34	6,274,444.24	180,594.29	20,845.11	10,381.31	154,310.65	57,608.88
......	4,151,341.95	......	......	......	......	......
16,669.00	3,649,083.30	52,953.15	9,595.46	2,112.55	90,628.67	35,173.82
16,088.04	3,024,093.97	33,017.12	4,741.17	1,331.65	70,877.92	19,832.16
11,522.52	483,901.89	3,717.44	......	......	......	10,224.10
......	......	......	......	......	187,172.22	......
4,184.79	2,509,344.39	2,543.09	2,188.06	309.66	37,842.69	4,763.50
......	3,570,474.01	619.65	......	......	18,335.05	20,941.07
108,453.48	44,060,355.61	279,810.87	37,369.80	14,135.17	861,755.25	195,941.62
3,125.43	437,174.18	11,713.04	2,620.82	1,355.81	......	10,180.68
9,000.00	......	10,000.00	4,000.00	2,000.00	31,981.30	......
3,404.15	1,695,834.51	2,293.24	305.75	360.28	100,223.54	5,637.69
2,050.35	445,118.82	......	......	......	25,053.24	5,445.23
......	6,406,157.81	......	......	......	......	......
52,836.54	11,464,279.18	56,414.19	......	......	395,616.59	113,492.49
2,641.47	91,578.48	......	......	......	1,638.46	1,846.57
181,511.42	64,600.498.59	360,231.34	44,296.37	17,851.26	1,416,268.38	332,544.28
......	......	......	......	......	......	......
181,511.42	64,600,498.59	360,231.34	44,296.37	17,851.26	1,416,268.38	332,544.28
9,059.10	25,130,566.68	55,482.25	11,635.05	9,461.15	121,667.00	41,640.23
1,559.38	1,635,421.42	1,135.51	......	......	29,141.33	......
......			......		18,650.46	......
2,641.47	......	2,313.46	......	......	205,634.72	1,788.07
13,259.95	26,765,988.10	58,931.22	11,635.05	9,461.15	375,093.51	43,428.30
52,836.54	11,464,279.18	56,414.19	......	......	395,616.59	113,492.49
31,607.71	7,624,079.06	92,928.91	12,990.26	1,518.00	137,049.32	40,563.12
500.00	868,207.45	862.42	......	......	8,945.88	461.60
84,944.25	19,956,565 69	150,205.52	12,990.26	1,518.00	541,611.79	154,517.21
26,940.90	9,452,433.32	48,517.75	7,791.36	......	177,592.00	29,896.35
......	6,406,157.81	......			......	......
56,366.32	2,019,353.67	102,576.85	11,879.70	6,872.11	321,971.08	104,702.42
83,307.22	17,877,944.80	151,094.60	19,671.06	6,872.11	499,563.08	134,598.77
181,511.42	64,600,498.59	360,231.34	44,296.37	17,851.26	1,416,268.38	332,544.28
8.4	43.6	19.4	26.3	53.0	22.5	19.8

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Wardsville	Water-down	Waterford	Waterloo	Watford
Population	240	919	1,213	8,714	941
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings		200.00		14,454.37	
Substation equipment				63,643.83	
Distribution system—overhead	5,040.50	16,146.32	15,772.78	90,844.94	16,539.14
Distribution system—underground					
Line transformers	1,665.49	5,825.50	7,201.37	39,939.41	5,411.56
Meters	1,253.12	5,718.80	5,939.66	35,158.32	5,269.77
Street light equipment, regular	519.36	583.81	3,231.62	14,105.43	807.31
Street light equipment, ornamental				3,106.80	
Miscellaneous construction expense	518.73	358.48	504.26	6,381.34	2,176.34
Steam or hydraulic plant					
Old plant	193.94			24,160.67	657.44
Total plant	9,191.14	28,832.91	32,649.69	291,795.11	30,861.56
Bank and cash balance	107.21	3,444.26	689.74	19,414.36	1,080.09
Securities and investments			5,300.00		5,500.00
Accounts receivable	934.76	1,430.04	577.11	2,356.02	1,936.70
Inventories				204.99	72.67
Sinking fund on local debentures				11,994.01	
Equity in H-E.P.C. systems	2,124.80	14,627.98	19,469.40	158,041.94	13,162.12
Other assets	154.48				
Total assets	12,512.39	48,335.19	58,685.94	483,806.43	52,613.14
Deficit					
Total	12,512.39	48,335.19	58,685.94	483,806.43	52,613.14
Liabilities					
Debenture balance	3,893.41			47,618.84	793.17
Accounts payable				3,352.68	836.79
Bank overdraft					
Other liabilities		80.00	42.00	3,106.80	
Total liabilities	3,893.41	80.00	42.00	54,078.32	1,629.96
Reserves					
For equity in H-E.P.C. systems	2,124.80	14,627.98	19,469.40	158,041.94	13,162.12
For depreciation	2,158.84	7,383.58	9,842.00	99,351.25	6,359.99
Other reserves				328.00	23.00
Total reserves	4,283.64	22,011.56	29,311.40	257,721.19	19,545.11
Surplus					
Debentures paid	3,668.99	8,000.00	7,745.53	58,381.16	8,920.04
Local sinking fund				11,994.01	
Operating surplus	666.35	18,243.63	21,587.01	101,631.75	22,518.03
Total surplus	4,335.34	26,243.63	29,332.54	172,006.92	31,438.07
Total liabilities, reserves and surplus	12,512.39	48,335.19	58,685.94	483,806.43	52,613.14
Percentage of net debt to total assets	37.5	0.3	0.1	12.5	4.1

"A"—Continued

Hydro Municipalities as at December 31, 1934

Welland 10,655	Wellesley P.V.	West Lorne 776	Weston 4,828	Wheatley 754	Windsor 61,173	Woodbridge 740	Woodstock 11,007
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
73,269.45			11,903.31		312,503.82		35,489.71
57,402.56			32,737.85		678,250.86		94,693.30
133,400.14	6,691.79	11,330.46	60,344.01	15,009.43	756,330.41	16,771.25	102,782.69
7,475.04					141,997.19		
57,361.63	2,153.50	4,274.36	35,520.70	4,242.44	343,920.00	5,964.78	55,768.46
56,929.09	2,464.94	3,106.75	22,634.69	3,806.61	327,189.69	4,348.12	54,689.11
4,246.63	545.11	643.57	29,975.76	1,659.26	37,338.37	423.26	15,068.12
36,513.75					693,788.56		
12,359.55	138.13	347.14	5,996.08	1,114.65	126,729.03	798.20	3,045.33
49,989.65		1,250.00		2,569.50	140,902.11		
488,947.49	11,993.47	20,952.28	199,112.40	28,401.89	3,558,950.04	28,305.61	361,536.72
6,625.72	595.70	2,000.15	9,007.15	2,636.50	35,660.41	71.46	34,119.46
7,256.07		3,000.00		1,500.00	189,413.80		86,000.00
24,481.85	33.97	404.73	6,006.70	822.59	104,154.19	628.01	2,366.47
19,691.36			215.01		87,102.10		581.82
118,443.02					53,577.18		54,175.78
177,293.67	10,780.94	17,748.82	139,319.79	7,289.53	1,166,493.19	17,807.19	233,803.35
21,711.85			5,607.24	40.00	1,610.22	247.43	5,914.92
864,451.03	23,404.08	44,105.98	359,268.29	40,690.51	5,196,961.13	47,059.70	778,498.52
864,451.03	23,404.08	44,105.98	359,268.29	40,690.51	5,196,961.13	47,059.70	778,498.52
251,052.05	1,198.82	4,872.78	35,231.22	7,562.81	1,175,184.11	4,732.82	74,369.66
52,398.02		946.39	16.57	112.87	76,869.45	1,482.46	2,968.75
43,828.20		15.00	5,607.24	30.00	754,203.83	247.43	5,914.92
347,278.27	1,198.82	5,834.17	40,855.03	7,705.68	2,006,257.39	6,462.71	83,253.33
177,293.67	10,780.94	17,748.82	139,319.79	7,289.53	1,166,493.19	17,807.19	233,803.35
114,273.60	2,486.84	6,401.14	34,003.37	3,320.36	453,594.97	7,440.66	137,444.37
3,200.07					149,925.97		13,310.74
294,767.34	13,267.78	24,149.96	173,323.16	10,609.89	1,770,014.13	25,247.85	384,558.46
47,947.95	6,301.18	3,127.22	34,801.22	5,437.19	814,815.92	3,767.15	53,015.97
118,443.02					53,577.18		54,175.78
56,014.45	2,636.30	10,994.63	110,288.88	16,937.75	552,296.51	11,581.99	203,494.98
222,405.42	8,937.48	14,121.85	145,090.10	22,374.94	1,420,689.61	15,349.14	310,686.73
864,451.03	23,404.08	44,105.98	359,268.29	40,690.51	5,196,961.13	47,059.70	778,498.52
36.1	9.5	22.1	18.6	23.1	38.3	22.1	5.9

STATEMENT

Balance Sheets of Electrical Departments of

NIAGARA SYSTEM—Concluded

Municipality Population	Wyoming 505	York Twp.	Zurich P.V.	NIAGARA SYSTEM SUMMARY
Assets	$ c.	$ c.	$ c.	$ c.
Lands and buildings				8,852,717.35
Substation equipment				20,847,086.56
Distribution system—overhead	7,368.71	778,651.24	6,932.37	17,090,972.20
Distribution system—underground				5,621,403.79
Line transformers	1,383.85		1,643.52	8,286,724.95
Meters	2,348.24		2,316.77	7,029,718.93
Street light equipment, regular	289.62	49,545.94	471.82	1,750,469.86
Street light equipment, ornamental				1,464,306.73
Miscellaneous construction expense	805.20	19,070.96	269.97	3,522,907.29
Steam or hydraulic plant				14,744.74
Old plant			150.00	4,378,768.15
Plant not distributed				200,000.00
Total plant	12,195.62	847,268.14	11,784.45	79,059,820.55
Bank and cash balance	176.17	76,132.01	1,173.93	1,682,906.63
Securities and investments			2,000.00	812,616.45
Accounts receivable	143.04	14,260.21	28.25	3,335,965.59
Inventories				979,113.97
Sinking fund on local debentures				7,949,800.32
Equity in H-E.P.C. systems	4,964.31		8,299.79	25,955,262.41
Other assets	35.00	20,186.71		279,437.27
Total assets	17,514.14	957,847.07	23,286.42	120,054,923.19
Deficit	2,126.42			15,663.83
Total	19,640.56	957,847.07	23,286.42	120,070,587.02
Liabilities				
Debenture balance	843.94	385,098.50	3,558.52	35,699,558.87
Accounts payable	84.61	60,968.81	69.87	2,798,729.54
Bank overdraft				63,308.13
Other liabilities	35.00		20.00	3,597,108.21
Total liabilities	963.55	446,067.31	3,648.39	42,158,704.75
Reserves				
For equity in H-E.P.C. systems	4,964.31		8,299.79	25,955,262.41
For depreciation	4,856.64	169,047.76	4,409.70	14,444,891.96
Other reserves				1,554,057.00
Total reserves	9,820.95	169,047.76	12,709.49	41,954,211.37
Surplus				
Debentures paid	8,856.06	214,901.50	2,033.09	17,487,842.97
Local sinking fund				7,949,800.32
Operating surplus		127,830.50	4,895.45	10,520,027.61
Total surplus	8,856.06	342,732.00	6,928.54	35,957,670.90
Total liabilities, reserves and surplus	19,640.56	957,847.07	23,286.42	120,070,587.02
Percentage of net debt to total assets	7.7	46.6	24.3	38.7

"A"—Continued

Hydro Municipalities as at December 31, 1934

GEORGIAN BAY SYSTEM

Alliston 1,379	Arthur 1,036	Barrie 7,686	Beaverton 989	Beeton 601	Bradford 1,060	Brechin P.V.	Cannington 864
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
		14,199.11	299.50				
675.73		15,285.02		428.50	388.50		
26,672.86	17,202.27	57,199.97	21,237.62	11,733.25	19,385.72	1,789.59	10,105.77
		66,437.67					
7,039.73	3,980.80	43,667.83	7,112.69	2,188.63	4,072.65	1,126.71	4,228.88
7,247.34	3,427.20	41,749.91	6,013.08	2,042.19	3,974.55	726.95	4,277.82
1,522.69	767.21	12,063.80	1,173.58	1,169.54	544.95	212.44	924.69
2,691.02	381.92	7,293.81	2,548.51	1,433.38	1,828.94	553.28	750.66
7,846.49	1,086.62	42,634.32	3,772.42				3,609.37
53,695.86	26,846.02	300,531.44	42,157.40	18,995.49	30,195.31	4,408.97	23,897.19
1,815.79	376.97	2,195.12	1,378.72	1,562.37	1,921.09	803.82	730.26
			9,000.00		1,000.00		1,326.62
1,775.93	170.30	12,539.09	1,407.27	623.71	3,199.33	798.41	1,034.44
	48.96	142.98	22.44	14.96	7.19	16.32	140.83
12,801.88	11,941.01	82,793.94	13,313.97	9,678.86	10,737.95	5,143.14	10,006.32
			378.20		199.73	21.85	5.00
70,089.46	39,383.26	398,202.57	67,658.00	30,875.39	47,260.60	11,192.51	37,140.66
	12,190.43			1,275.88			
70,089.46	51,573.69	398,202.57	67,658.00	32,151.27	47,260.60	11,192.51	37,140.66
24,503.15	16,879.50	23,979.17	6,023.76	9,658.81	17,294.52	2,049.07	7,325.30
	3,031.34	7,310.68	27.70	657.54	621.66	278.46	142.10
		11,500.00					
		3.00	378.20		199.73	21.85	5.00
24,503.15	19,910.84	42,792.85	6,429.66	10,316.35	18,115.91	2,349.38	7,472.40
12,801.88	11,941.01	82,793.94	13,313.97	9,678.86	10,737.95	5,143.14	10,006.32
14,581.34	11,601.34	66,202.51	12,265.92	6,814.87	8,294.44	1,795.24	8,040.25
		600.00					
27,383.22	23,542.35	149,596.45	25,579.89	16,493.73	19,032.39	6,938.38	18,046.57
15,496.85	8,120.50	84,020.83	8,976.24	5,341.19	7,905.48	1,161.85	7,674.70
2,706.24		121,792.44	26,672.21		2,206.82	742.90	3.946.99
18,203.09	8,120.50	205,813.27	35,648.45	5,341.19	10,112.30	1,904.75	11,621.69
70,089.46	51,573.69	398,202.57	67,658.00	32,151.27	47,260.60	11,192.51	37,140.66
42.8	72.6	13.6	11.8	48.7	49.6	38.8	27.5

STATEMENT

Balance Sheets of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality Population	Chatsworth 308	Chesley 1,762	Coldwater 632	Collingwood 5,536	Cookstown P.V.
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	229.00		275.00	15,950.08	60.00
Substation equipment		595.98		11,203.24	392.95
Distribution system—overhead	4,907.52	19,951.45	7,719.76	48,140.54	9,136.76
Distribution system—underground					
Line transformers	1,618.38	6,809.24	2,779.67	17,032.06	2,232.60
Meters	1,493.72	6,798.83	2,932.65	22,218.00	2,181.33
Street light equipment, regular	529.17	1,201.48	440.68	2,876.90	701.86
Street light equipment, ornamental					
Miscellaneous construction expense	400.80	3,359.32	196.92	1,629.00	1,520.03
Steam or hydraulic plant					
Old plant		5,503.60			
Total plant	9,178.59	44,219.90	14,344.68	119,049.82	16,225.53
Bank and cash balance	761.43	233.84	2,266.99	2,169.94	4,227.42
Securities and investments		10,000.00	4,000.00	17,000.00	
Accounts receivable	1,005.42	3,559.63	1,567.62	2,205.56	658.19
Inventories	16.73	202.47		499.51	
Sinking fund on local debentures	3,415.04				
Equity in H-E.P.C. systems	2,539.52	21,170.73	8,211.40	88,206.95	3,019.34
Other assets			56.00	1,850.86	5.00
Total assets	16,916.73	79,386.57	30,446.69	230,982.64	24,135.48
Deficit					
Total	16,916.73	79,386.57	30,446.69	230,982.64	24,135.48
LIABILITIES					
Debenture balance	4,514.03	2,986.21	3,348.33		6,255.13
Accounts payable	28.95	1,665.71	86.69	21.14	
Bank overdraft					
Other liabilities			56.00	1,850.86	5.00
Total liabilities	4,542.98	4,651.92	3,491.02	1,872.00	6,260.13
RESERVES					
For equity in H-E.P.C. systems	2,539.52	21,170.73	8,211.40	88,206.95	3,019.34
For depreciation	2,250.06	15,066.48	7,468.44	44,706.19	6,191.61
Other reserves					
Total reserves	4,789.58	36,237.21	15,679.84	132,913.14	9,210.95
SURPLUS					
Debentures paid	885.97	24,513.79	3,651.67	38,183.42	7,244.87
Local sinking fund	3,415.04				
Operating surplus	3,283.16	13,983.65	7,624.16	58,014.08	1,419.53
Total surplus	7,584.17	38,497.44	11,275.83	96,197.50	8,664.40
Total liabilities, reserves and surplus	16,916.73	79,386.57	30,446.69	230,982.64	24,135.48
Percentage of net debt to total assets	10.3	8.0	15.7	1.2	29.6

"A"—Continued

Hydro Municipalities as at December 31, 1934

Creemore 620	Dundalk 650	Durham 1,776	Elmvale P.V.	Elmwood P.V.	Flesherton 488	Grand Valley 589	Gravenhurst 1,956
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
		56.59	106.25			36.50	3,526.17
		546.02					5,318.56
7,291.01	7,729.67	21,837.80	8,318.74	4,812.76	5,446.88	11,341.14	26,032.08
3,171.36	3,351.56	7,073.30	3,959.64	803.88	1,692.52	2,179.63	8,257.65
3,021.57	2,489.42	7,003.17	3,354.17	1,014.08	2,214.59	2,778.98	9,682.02
295.27	1,082.10	1,408.66	447.17	302.28	720.51	503.83	4,102.71
279.27	393.38	1,483.58	578.53	1,093.62	928.25	205.70	2,135.75
3,433.74	380.94	2,091.39	2,273.07			919.85	28,055.29
17,492.22	15,427.07	41,500.51	19,037.57	8,026.62	11,002.75	17,965.63	87,110.23
468.02	944.12		3,751.47	718.55	3,402.02	2,831.96	2,123.79
	3,000.00	7,000.00		1,500.00		2,128.60	
898.24	257.17	3,001.57	857.40	321.39	284.95	270.65	8,145.13
4.89	21.80	38.94	30.60		39.16	43.66	909.23
				409.92			8,449.46
7,381.27	7,148.60	19,769.43	9,812.03	2,324.56	4,056.95	7,271.13	13,959.51
26,244.64	26,798.76	71,310.45	33,489.07	13,301.04	18,785.83	30,511.63	120,697.35
26,244.64	26,798.76	71,310.45	33,489.07	13,301.04	18,785.83	30,511.63	120,697.35
	398.16	1,868.46	2,943.07	2,165.82	3,483.41	1,758.27	10,559.46
995.94	5.64	21.79	512.85		84.65	93.37	864.38
		389.81					
995.94	403.80	2,280.06	3,455.92	2,165.82	3,568.06	1,851.64	11,423.84
7,381.27	7,148.60	19,769.43	9,812.03	2,324.56	4,056.95	7,271.13	13,959.51
3,558.29	4,149.19	11,342.40	7,202.24	2,983.86	3,790.27	5,693.44	17,571.99
							1,500.00
10,939.56	11,297.79	31,111.83	17,014.27	5,308.42	7,847.22	12,964.57	33,031.50
6,500.00	5,938.74	23,931.54	4,056.93	5,034.18	3,216.59	9,241.73	53,408.95
				409.92			8,449.46
7,809.14	9,158.43	13,987.02	8,961.95	382.70	4,153.96	6,453.69	14,383.60
14,309.14	15,097.17	37,918.56	13,018.88	5,826.80	7,370.55	15,695.42	76,242.01
26,244.64	26,798.76	71,310.45	33,489.07	13,301.04	18,785.83	30,511.63	120,697.35
5.3	2.1	4.4	14.6	16.6	24.2	8.0	3.0

STATEMENT

Balance Sheets of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality	Hanover	Holstein	Huntsville	Kincardine	Kirkfield
Population	3,039	P.V.	2,563	2,511	P.V.
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	3,001.32		353.52	6,389.46	
Substation equipment	9,271.19		647.30	2,794.20	
Distribution system—overhead	49,001.03	2,102.68	13,384.06	42,627.03	5,130.67
Distribution system—underground					
Line transformers	16,825.46	571.82	6,875.72	10,962.45	557.90
Meters	15,493.16	544.92	8,748.51	10,780.58	722.75
Street light equipment, regular	2,326.30	168.69	2,262.52	5,318.52	379.00
Street light equipment, ornamental					
Miscellaneous construction expense	5,252.75	205.93	522.60	5,361.61	301.53
Steam or hydraulic plant					
Old plant	2,370.91		5,436.20		
Total plant	103,542.12	3,594.04	38,230.43	84,233.85	7,091.85
Bank and cash balance	4,598.71	74.39	6,346.80	50.00	546.92
Securities and investments	26,404.72		12,570.79		
Accounts receivable	4,501.00	85.92	1,258.29	642.62	634.71
Inventories	180.15	62.15	2,014.47	888.20	
Sinking fund on local debentures					
Equity in H-E.P.C. systems	50,548.25	2,325.71	34,460.79	21,703.66	1,931.25
Other assets			642.50	21.54	
Total assets	189,774.95	6,142.21	95,524.07	107,539.87	10,204.73
Deficit		4,958.66			1,524.01
Total	189,774.95	11,100.87	95,524.07	107,539.87	11,728.74
LIABILITIES					
Debenture balance	28,498.00		1,666.16	27,750.07	2,203.71
Accounts payable	3,050.76	4,776.93	516.15	860.35	1,586.06
Bank overdraft				580.23	
Other liabilities			642.50		
Total liabilities	31,548.76	4,776.93	2,824.81	29,190.65	3,789.77
RESERVES					
For equity in H-E.P.C. systems	50,548.25	2,325.71	34,460.79	21,703.66	1,931.25
For depreciation	39,268.51	1,236.18	12,904.85	17,699.93	2,211.43
Other reserves					
Total reserves	89,816.76	3,561.89	47,365.64	39,403.59	4,142.68
SURPLUS					
Debentures paid	59,002.00	2,762.05	19,467.38	36,449.93	3,796.29
Local sinking fund					
Operating surplus	9,407.43		25,866.24	2,495.70	
Total surplus	68,409.43	2,762.05	45,333.62	38,945.63	3,796.29
Total liabilities, reserves and surplus	189,774.95	11,100.87	95,524.07	107,539.87	11,728.74
Percentage of net debt to total assets	22.7	125.2	4.6	34.0	45.8

"A"—Continued

Hydro Municipalities as at December 31, 1934

Lucknow 964	Markdale 792	Meaford 2,687	Midland 6,925	Mildmay 714	Mount Forest 1,839	Neustadt 458	Orange-ville 2,785
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
		1,104.93	19,983.57		3,725.00		2,585.07
	780.80	2,404.45	85,096.20		686.75		1,169.00
17,134.20	10,387.33	30,617.99	94,109.36	6,016.98	22,761.55	9,970.79	32,489.12
4,554.12	4,151.74	7,596.22	23,094.86	1,657.05	6,492.49	3,634.93	8,154.49
4,779.42	3,497.17	7,436.55	36,598.27	2,287.72	7,402.37	2,017.85	11,702.17
1,391.17	1,314.08	3,215.81	18,735.40	502.80	2,302.55	496.41	7,532.55
2,632.06	658.93	2,174.25	4,885.00	860.47	2,094.00	1,521.48	6,373.39
	2,080.65	3,476.43		849.00	3,810.95	1,097.60	3,204.99
30,490.97	22,870.70	58,026.63	282,502.66	12,174.02	49,275.66	18,739.06	73,210.78
2,063.04	1,810.91	3,312.77	75.00	2,746.68		108.56	5,331.15
4,500.00	1,255.13	16,853.60	29,000.00		4,000.00		2,500.00
1,978.96	1,434.60	2,174.40	22,849.24	832.60	2,109.87	55.48	2,289.45
	35.00	58.36	3,834.85	35.10	143.00	27.72	303.18
10,495.63	5,733.33	14,752.42	137,711.90	550.29	18,334.63	6,056.57	24,348.09
		949.05					
49,528.60	33,139.67	96,127.23	475,973.65	16,338.69	73,863.16	24,987.39	107,982.65
						18,387.61	
49,528.60	33,139.67	96,127.23	475,973.65	16,338.69	73,863.16	43,375.00	107,982.65
9,783.62	5,157.38	34,814.09	25,570.31	11,895.23	11,051.50	5,702.32	5,581.96
1,312.21	656.96		287.70		250.00	13,335.78	1,033.31
			30,496.09		1,043.58		
	20.00	949.05	760.54				
11,095.83	5,834.34	35,763.14	57,114.64	11,895.23	12,345.08	19,038.10	6,615.27
10,495.63	5,733.33	14,752.42	137,711.90	550.29	18,334.63	6,056.57	24,348.09
5,882.57	5,342.15	10,313.60	120,352.72	421.00	15,527.12	6,982.65	21,421.64
			2,000.00				
16,378.20	11,075.48	25,066.02	260,064.62	971.29	33,861.75	13,039.22	45,769.73
9,939.74	3,842.62	14.546.11	86,499.68	408.27	19,907.10	11,297.68	30,318.04
12,114.83	12,387.23	20,751.96	72,294.71	3,063.90	7,749.23		25,279.61
22,054.57	16,229.85	35,298.07	158,794.39	3,472.17	27,656.33	11,297.68	55,597.65
49,528.60	33,139.67	96,127.23	475,973.65	16,338.69	73,863.16	43,375.00	107,982.65
28.4	21.3	44.0	16.9	75.3	22.2	100.6	7.9

STATEMENT

Balance Sheets of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality Population	Owen Sound 12,894	Paisley 713	Penetanguishene 4,352	Port Elgin 1,351	Port McNicoll 880
	$ c.	$ c.	$ c.	$ c.	$ c.
ASSETS					
Lands and buildings	25,978.31		2,262.10	111.25	369.08
Substation equipment	12,919.97	1,933.26	7,076.39		
Distribution system—overhead	107,412.59	11,562.78	41,407.57	25,361.21	7,805.88
Distribution system—underground					
Line transformers	46,325.69	1,602.53	15,661.52	5,785.56	1,421.48
Meters	55,917.96	2,958.69	13,848.72	6,137.25	2,527.13
Street light equipment, regular	27,609.38	1,045.51	3,511.38	2,057.10	450.93
Street light equipment, ornamental					
Miscellaneous construction expense	3,482.75	869.45	1,410.69	575.76	649.25
Steam or hydraulic plant	33,282.00				
Old plant		1,745.00		4,213.00	
Total plant	312,928.65	21,717.22	85,178.37	44,241.13	13,223.75
Bank and cash balance	17,559.76	1,160.96		5,676.90	39.23
Securities and investments		2,500.00	1,016.65	10,000.00	
Accounts receivable	24,394.29	989.97	6,275.80	1,187.36	664.01
Inventories	9,185.40		334.71		
Sinking fund on local debentures					
Equity in H-E.P.C. systems	115,170.28	6,068.38	39,550.40	2,772.37	3,726.13
Other assets					
Total assets	479,238.38	32,436.53	132,355.93	63,877.76	17,653.12
Deficit					
Total	479,238.38	32,436.53	132,355.93	63,877.76	17,653.12
LIABILITIES					
Debenture balance		9,308.10	13,853.27	36,525.67	1,556.15
Accounts payable	88.47	30.37	6,448.03	3,370.21	758.63
Bank overdraft			845.41		
Other liabilities	2,854.72		37.50	20.00	
Total liabilities	2,943.19	9,338.47	21,184.21	39,915.88	2,314.78
RESERVES					
For equity in H-E.P.C. systems	115,170.28	6,068.38	39,550.40	2,772.37	3,726.13
For depreciation	62,577.61	4,114.52	32,516.86	3,055.18	4,384.29
Other reserves					
Total reserves	177,747.89	10,182.90	72,067.26	5,827.55	8,110.42
SURPLUS					
Debentures paid	141,000.00	6,691.90	27,146.73	5,474.33	5,743.85
Local sinking fund					
Operating surplus	157,547.30	6,223.26	11,957.73	12,660.00	1,484.07
Total surplus	298,547.30	12,915.16	39,104.46	18,134.33	7,227.92
Total liabilities, reserves and surplus	479,238.38	32,436.53	132,355.93	63,877.76	17,653.12
Percentage of net debt to total assets	0.8	35.4	22.8	65.3	16.6

"A"—Continued

Hydro Municipalities as at December 31, 1934

Port Perry 1,104	Priceville P.V.	Ripley 465	Rosseau 286	Shelburne 1,121	Southampton 1,356	Stayner 995	Sunderland P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
	68.00			800.00	25.00		
2,564.65				566.60		200.00	
19,042.38	4,717.36	9,975.19	7,118.65	14,735.46	20,157.66	12,745.53	4,151.87
4,676.69	702.86	3,551.90	2,204.63	6,265.47	5,868.54	5,603.35	1,365.63
4,056.46	380.00	1,458.83	1,051.87	6,538.06	7,025.34	5,295.47	2,040.94
1,037.90	139.88	844.33	451.87	1,059.60	1,958.73	966.80	627.74
159.38	833.90	1,198.39	1,126.07	2,263.26	1,046.26	326.63	211.49
				739.50	2,077.00	4,132.41	2,030.00
31,537.46	6,842.00	17,028.64	11,953.09	32,967.95	38,158.53	29,270.19	10,427.67
988.50	256.65	1,108.07	1,318.01	1,464.78	2,733.20	1,171.89	175.05
10,000.00				2,500.00		4,000.00	1,000.00
1,262.07	135.37	558.87	786.76	795.03	1,920.73	1,105.75	646.69
17.28	1.22	25.90	9.36	55.58			15.20
8,939.00	966.59	4,390.87	1,149.44	11,269.10	2,790.45	9,696.14	6,707.68
363.26						75.20	6.00
53,107.57	8,201.83	23,112.35	15,216.66	49,052.44	45,602.91	45,319.17	18,978.29
	7,660.58						
53,107.57	15,862.41	23,112.35	15,216.66	49,052.44	45,602.91	45,319.17	18,978.29
14,168.95	2,572.41	9,984.68	12,646.60	2,917.36	21,488.21	799.63	2,773.16
8.32	6,130.52		74.98	37.25	4.20	872.94	40.83
363.26		95.00			.74	75.20	6.00
14,540.53	8,702.93	10,079.68	12,721.58	2,954.61	21,493.15	1,747.77	2,819.99
8,939.00	966.59	4,390.87	1,149.44	11,269.10	2,790.45	9,696.14	6,707.68
6,531.31	1,765.30	3,452.46	654.47	10,767.27	2,548.73	9,882.87	3,463.60
			187.30				
15,470.31	2,731.89	7,843.33	1,991.21	22,036.37	5,339.18	19,579.01	10,171.28
5,712.71	4,427.59	3,987.26	353.40	17,002.64	11,511.79	13,200.37	4,026.84
17,384.02		1,202.08	150.47	7,058.82	7,258.79	10,792.02	1,960.18
23,096.73	4,427.59	5,189.34	503.87	24,061.46	18,770.58	23,992.39	5,987.02
53,107.57	15,862.41	23,112.35	15,216.66	49,052.44	45,602.91	45,319.17	18,978.29
32.9	120.3	53.9	90.4	7.8	50.2	4.9	23.0

STATEMENT

Balance Sheets of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality	Tara	Teeswater	Thornton	Tottenham	Uxbridge
Population	505	796	P.V.	556	1,512
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings					40.00
Substation equipment		330.31		358.50	2,657.65
Distribution system—overhead	11,112.22	16,987.54	6,403.82	8,107.22	13,434.36
Distribution system—underground					
Line transformers	2,176.95	4,760.65	860.41	1,117.48	3,898.53
Meters	1,739.29	3,315.65	817.56	2,109.02	4,510.81
Street light equipment, regular	430.59	1,406.90	381.95	460.17	1,259.64
Street light equipment, ornamental					
Miscellaneous construction expense	1,269.05	1,894.49	300.35	1,278.13	897.92
Steam or hydraulic plant					
Old plant		4,976.86		286.45	
Total plant	16,728.10	33,672.40	8,764.09	13,716.97	26,698.91
Bank and cash balance	691.48	889.67	612.65	758.33	
Securities and investments		1,000.00			8,000.00
Accounts receivable	590.64	582.92	59.13	218.96	1,823.56
Inventories	40.80	16.73			
Sinking fund on local debentures					
Equity in H-E.P.C. systems	5,155.34	7,178.07	1,994.06	6,276.06	9,595.22
Other assets				185.27	
Total assets	23,206.36	43,339.79	11,429.93	21,155.59	46,117.69
Deficit	3,434.30		4,001.83	3,573.06	
Total	26,640.66	43,339.79	15,431.76	24,728.65	46,117.69
LIABILITIES					
Debenture balance	4,502.99	10,950.62	2,938.78	7,225.57	10,827.96
Accounts payable		800.36	1,899.70	276.55	
Bank overdraft					764.00
Other liabilities		16.00		185.27	30.15
Total liabilities	4,502.99	11,766.98	4,838.48	7,687.39	11,622.11
RESERVES					
For equity in H-E.P.C. systems	5,155.34	7,178.07	1,994.06	6,276.06	9,595.22
For depreciation	5,985.32	4,986.13	4,038.00	5,023.67	5,055.64
Other reserves					
Total reserves	11,140.66	12,164.20	6,032.06	11,299.73	14,650.86
SURPLUS					
Debentures paid	10,997.01	17,049.38	4,561.22	5,741.53	5,379.63
Local sinking fund					
Operating surplus		2,359.23			14,465.09
Total surplus	10,997.01	19,408.61	4,561.22	5,741.53	19,844.72
Total liabilities, reserves and surplus	26,640.66	43,339.79	15,431.76	24,728.65	46,117.69
Percentage of net debt to total assets	24.9	32.5	51.3	51.7	31.8

"A"—Continued

Hydro Municipalities as at December 31, 1934

Victoria Harbor 1,126	Walkerton 2,370	Waubaushene P.V.	Wiarton 1,815	Windermere 130	Wingham 1,923	Woodville 420	GEORGIAN BAY SYSTEM SUMMARY
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
			200.00		9,163.34		110,898.15
					4,863.91		171,155.63
8,616.56	40,708.81	6,985.02	21,293.08	9,190.19	40,474.75	2,989.66	1,156,223.31
							66,437.67
1,278.18	10,877.32	1,907.40	5,554.58	2,908.65	15,868.55	2,127.54	383,880.75
2,302.00	10,971.29	1,938.82	5,810.89	1,002.87	14,486.02	2,179.77	409,073.72
366.32	2,513.25	221.79	1,960.48	247.26	3,430.56	217.55	133,594.93
207.60	2,213.76	361.89	5,467.15	496.50	4,613.19	314.93	97,997.91
					14,711.99		47,993.99
500.00	4,897.60		3,242.00		12,320.02	2,182.50	167,276.17
13,270.66	72,182.03	11,414.92	43,528.18	13,845.47	119,932.33	10,011.95	2,744,532.23
310.12	6,249.07	1,622.17	267.17	659.10	2,378.27	1,149.27	110,988.92
			2,000.00		7,000.00	5,000.00	207,056.11
894.14	2,828.16	368.24	1,781.97	640.63	5,026.37	961.82	141,927.78
	536.22	13.80	23.26		3,510.83		23,569.14
							12,274.42
4,051.13	5,485.64	2,305.71	4,406.07	938.52	20,605.32	6,721.22	968,150.20
							4,759.46
18,526.05	87,281.12	15,724.84	52,006.65	16,083.72	158,453.12	23,844.26	4,213,258.26
							57,006.36
18,526.05	87,281.12	15,724.84	52,006.65	16,083.72	158,453.12	23,844.26	4,270,264.62
515.57	56,993.60	287.82	35,081.31	6,159.25	33,472.52	2,623.97	617,842.13
68.65		17.50	1.98	6,428.27		87.74	71,562.30
							45,619.12
	5.00		20.00	345.00	430.00		9,375.57
584.22	56,998.60	305.32	35,103.29	12,932.52	33,902.52	2,711.71	744,399.12
4,051.13	5,485.64	2,305.71	4,406.07	938.52	20,605.32	6,721.22	968,150.20
4,086.92	3,848.00	2,423.57	2,792.94	1,181.88	25,249.56	2,308.72	733,829.54
				210.47			4,497.77
8,138.05	9,333.64	4,729.28	7,199.01	2,330.87	45,854.88	9,029.94	1,706,477.51
5,984.43	6,006.40	3,212.18	2,318.69	399.01	62,632.98	2,876.03	996,180.81
							12,274.42
3,819.35	14,942.48	7,478.06	7,385.66	421.32	16,062.74	9,226.58	810,932.76
9,803.78	20,948.88	10,690.24	9,704.35	820.33	78,695.72	12,102.61	1,819,387.99
18,526.05	87,281.12	15,724.84	52,006.65	16,083.72	158,453.12	23,844.26	4,270,264.62
4.0	69.7	2.3	73.7	85.4	24.6	15.8	22.6

STATEMENT

Balance Sheets of Electrical Departments of

EASTERN ONTARIO SYSTEM

Municipality	Alexandria	Apple Hill	Athens	Bath	Belleville
Population	1,928	P.V.	652	355	14,012
Assets	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings		169.06			36,108.70
Substation equipment					2,338.65
Distribution system—overhead	28,034.19	2,886.41	13,972.80	5,818.50	106,526.64
Distribution system—underground					
Line transformers	8,333.04	1,288.37	1,757.05	1,011.93	23,903.92
Meters	6,900.32	1,000.21	2,555.40	690.71	56,330.02
Street light equipment, regular	2,224.20	421.12	698.90	554.37	17,298.08
Street light equipment, ornamental					
Miscellaneous construction expense	5,099.23	210.33	1,011.61	727.38	4,390.86
Steam or hydraulic plant					
Old plant	4,466.89	709.55			
Total plant	55,057.87	6,685.05	19,995.76	8,802.89	246,896.87
Bank and cash balance	5,785.00	335.11	455.25	126.56	21,600.88
Securities and investments	5,000.00		2,000.00		5,000.00
Accounts receivable	2,877.32	308.90	2,074.88	20.90	35,118.03
Inventories					6,882.49
Sinking fund on local debentures					
Equity in H-E.P.C. systems	19,183.90	1,883.92	2,888.80	659.22	73,972.50
Other assets					
Total assets	87,904.09	9,212.98	27,414.69	9,609.57	389,470.77
Deficit		256.46		259.44	
Total	87,904.09	9,469.44	27,414.69	9,869.01	389,470.77
Liabilities					
Debenture balance	17,149.84	3,026.50	11,234.33	7,057.99	37,000.00
Accounts payable	5,737.15	92.26	388.00	1,169.79	339.10
Bank overdraft					
Other liabilities	386.23			44.00	7,450.89
Total liabilities	23,273.22	3,118.76	11,622.33	8,271.78	44,789.99
Reserves					
For equity in H-E.P.C. systems	19,183.90	1,883.92	2,888.80	659.22	73,972.50
For depreciation	11,784.76	1,493.26	2,409.75	496.00	25,051.64
Other reserves	550.00		37.89		1,373.29
Total reserves	31,518.66	3,377.18	5,336.44	1,155.22	100,397.43
Surplus					
Debentures paid	30,984.00	2,973.50	2,765.67	442.01	139,000.00
Local sinking fund					
Operating surplus	2,128.21		7,690.25		105,283.35
Total surplus	33,112.21	2,973.50	10,455.92	442.01	244,283.35
Total liabilities, reserves and surplus	87,904.09	9,469.44	27,414.69	9,869.01	389,470.77
Percentage of net debt to total assets	33.9	42.5	47.4	92.4	14.2

"A"—Continued

Hydro Municipalities as at December 31, 1934

Bloomfield 619	Bowmanville 3,626	Brighton 1,442	Brockville 9,654	Cardinal 1,395	Carleton Place 4,272	Chesterville 970
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
			45,295.14		6,255.32	250.00
410.00			1,000.87		2,471.63	
11,121.71	43,954.11	14,582.03	85,340.59	11,616.99	41,989.66	7,946.71
2,230.77	7,599.91	4,157.45	36,665.83	2,743.16	11,101.56	3,245.64
2,724.61	17,166.45	6,486.55	43,031.49	2,361.22	16,393.45	4,195.17
908.20	2,921.51	821.98	22,615.59	385.27	6,663.28	526.97
1,403.42	2,368.39	223.84	2,865.62	728.63	3,504.89	658.08
			54,960.86			
			4,821.76	3,474.80	5,293.19	
18,798.71	74,010.37	26,271.85	296,597.75	21,310.07	93,672.98	16,822.57
99.15	15,607.75	25.00	200.00	1,639.92	9,608.89	473.11
			115,000.00		20,000.00	9,000.00
25.95	10,027.40	5,565.63	20,480.45	1,099.57	9,189.84	662.92
	2,303.30	5,198.11	2,551.04		834.36	564.34
3,033.08	17,224.43	4,882.72	99,600.06	1,842.06	44,659.69	18,262.73
21,956.89	119,173.25	41,943.31	534,429.30	25,891.62	177,965.76	45,785.67
21,956.89	119,173.25	41,943.31	534,429.30	25,891.62	177,965.76	45,785.67
6,774.11	58,742.95	21,666.62		13,044.78	41,087.30	922.78
184.89			7,423.76		31.61	31.10
		1,151.02	5,897.61			
27.00	714.00	94.78	63.00		784.52	
6,986.00	59,456.95	22,912.42	13,384.37	13,044.78	41,903.43	953.88
3,033.08	17,224.43	4,882.72	99,600.06	1,842.06	44,659.69	18,262.73
4,477.96	4,822.50	2,257.55	80,543.25	1,266.80	10,706.39	7,876.34
			10,291.15		1,467.14	
7,511.04	22,046.93	7,140.27	190,434.46	3,108.86	56,833.22	26,139.07
4,425.89	12,257.05	3,333.38	226,657.54	1,955.22	24,912.70	5,577.22
3,033.96	25,412.32	8,557.24	103,952.93	7,782.76	54,316.41	13,115.50
7,459.85	37,669.37	11,890.62	330,610.47	9,737.98	79,229.11	18,692.72
21,956.89	119,173.25	41,943.31	534,429.30	25,891.62	177,965.76	45,785.67
36.4	58.3	61.9	3.1	54.2	31.0	3.5

STATEMENT

Balance Sheets of Electrical Departments of

EASTERN ONTARIO SYSTEM—Continued

Municipality	Cobourg	Colborne	Deseronto	Finch	Hastings
Population	5,556	1,040	1,399	393	753
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings					
Substation equipment	1,668.35		161.18		
Distribution system—overhead	65,066.47	8,264.71	9,716.54	7,467.30	14,157.12
Distribution system—underground					
Line transformers	16,116.92	676.54	1,612.27	1,393.35	1,771.80
Meters	24,965.76	1,465.28	4,771.27	1,728.20	2,973.20
Street light equipment, regular	8,410.08	1,321.40	432.60	435.62	1,160.09
Street light equipment, ornamental					
Miscellaneous construction expense	4,063.48	2,465.45	289.11	23.24	703.25
Steam or hydraulic plant					
Old plant					1,733.13
Total plant	120,291.06	14,193.38	16,982.97	11,047.71	22,498.59
Bank and cash balance	21,705.22	2,111.42	2,948.07	61.43	440.95
Securities and investments				3,000.00	5,500.00
Accounts receivable	5,231.66	464.24	1,245.04	452.48	524.84
Inventories	2,674.15	389.76	814.78		
Sinking fund on local debentures					
Equity in H-E.P.C. systems	12,854.89	754.03	2,625.67	2,086.80	1,161.15
Other assets					
Total assets	162,756.98	17,912.83	24,616.53	16,648.42	30,125.53
Deficit					
Total	162,756.98	17,912.83	24,616.53	16,648.42	30,125.53
LIABILITIES					
Debenture balance	99,254.87	11,762.36	9,332.89	5,402.77	19,092.00
Accounts payable	611.55			477.21	
Bank overdraft					
Other liabilities	3,763.00	181.00	328.12		86.00
Total liabilities	103,629.42	11,943.36	9,661.01	5,879.98	19,178.00
RESERVES					
For equity in H-E.P.C. systems	12,854.89	754.03	2,625.67	2,086.80	1,161.15
For depreciation	6,248.12	408.00	1,289.92	1,340.60	1,451.60
Other reserves				60.00	
Total reserves	19,103.01	1,162.03	3,915.59	3,487.40	2,612.75
SURPLUS					
Debentures paid	6,738.63	432.23	5,667.11	1,597.23	1,908.00
Local sinking fund					
Operating surplus	33,285.92	4,375.21	5,372.82	5,683.81	6,426.78
Total surplus	40,024.55	4,807.44	11,039.93	7,281.04	8,334.78
Total liabilities, reserves and surplus	162,756.98	17,912.83	24,616.53	16,648.42	30,125.53
Percentage of net debt to total assets	69.1	69.6	43.9	40.4	66.2

"A"—Continued

Hydro Municipalities as at December 31, 1934

Havelock 1,249	Kemptville 1,227	Kingston 23,260	Lakefield 1,387	Lanark 623	Lancaster 575	Lindsay 6,963
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
....	....	185,763.47	3,137.97	....	....	10,556.68
572.90	....	51,600.29	....	....	....	3,176.56
19,560.23	20,129.16	167,935.59	21,935.50	6,201.44	6,439.01	73,472.53
....	....	170,761.43	....	....	....	....
2,402.18	6,374.09	59,688.54	5,466.60	1,197.54	962.35	21,145.02
5,303.64	6,496.99	100,772.47	7,110.16	1,835.39	1,423.52	30,296.73
1,844.93	1,063.16	72,368.22	1,876.16	682.38	650.65	10,337.90
....	....	....	....	....	....	....
4,590.91	5,862.66	46,293.11	3,757.38	330.38	1,068.55	1,436.38
....	....	15,890.14	....	....	....	....
2,420.45	....	....	3,445.25	....	....	....
36,695.24	39,926.06	871,073.26	46,729.02	10,247.13	10,544.08	150,421.80
1,048.31	290.83	26,676.13	1,255.19	952.04	607.93	11,949.45
9,000.00	20,000.00	272,175.00	8,000.00	1,982.05	....	45,000.00
366.34	3,409.60	34,674.96	1,205.86	525.58	58.04	6,162.69
....	1,050.01	6,963.79	....	....	....	424.26
....	....	16,182.00	....	....	....	....
6,524.31	11,211.40	....	5,859.80	3,500.74	4,670.12	42,531.42
....	....	2,854.37	....	....	....	....
53,634.20	75,887.90	1,230,599.51	63,049.87	17,207.54	15,880.17	256,489.62
....	....	....	....	....	6,313.34	....
53,634.20	75,887.90	1,230,599.51	63,049.87	17,207.54	22,193.51	256,489.62
14,555.50	17,596.78	77,490.01	25,104.82	2,941.68	2,543.64	103,258.05
....	2,753.16	3,087.75	....	28.39	4,783.52	33.87
....	....	....	....	....	....	....
....	....	798.38	420.96	....	95.00	1,843.89
14,555.50	20,349.94	81,376.14	25,525.78	2,970.07	7,422.16	105,135.81
6,524.31	11,211.40	....	5,859.80	3,500.74	4,670.12	42,531.42
7,793.77	7,620.24	144,706.02	10,803.07	2,030.25	2,674.45	20,009.39
....	....	205,138.68	....	....	....	....
14,318.08	18,831.64	349,844.70	16,662.87	5,530.99	7,344.57	62,540.81
18,344.50	7,403.22	234,409.99	8,395.18	4,619.79	7,426.78	26,741.95
....	....	16,182.00	....	....	....	....
6,416.12	29,303.10	548,786.68	12,466.04	4,086.69	....	62,071.05
24,760.62	36,706.32	799,378.67	20,861.22	8,706.48	7,426.78	88,813.00
53,634.20	75,887.90	1,230,599.51	63,049.87	17,207.54	22,193.51	256,489.62
30.9	31.5	5.4	44.6	21.7	65.9	49.1

STATEMENT

Balance Sheets of Electrical Departments of

EASTERN ONTARIO SYSTEM—Continued

Municipality	Madoc	Marmora	Martintown	Maxville
Population	1,067	1,015	P.V.	725
ASSETS	$ c.	$ c.	$ c.	$ c.
Lands and buildings	100.00		126.15	
Substation equipment				407.79
Distribution system—overhead	10,613.58	12,678.71	2,709.88	11,494.86
Distribution system—underground				
Line transformers	2,773.82	2,378.99	690.33	1,540.96
Meters	4,823.51	3,569.48	871.51	2,465.30
Street light equipment, regular	1,500.00	1,284.09	335.26	1,605.64
Street light equipment, ornamental				
Miscellaneous construction expense	203.30	2,000.91	653.27	2,394.86
Steam oi hydraulic plant				
Old plant		573.62		
Total plant	20,014.21	22,485.80	5,386.40	19,909.41
Bank and cash balance	2,740.53	4,437.79	174.46	876.20
Securities and investments		560.69		
Accounts receivable	909.98	673.85	615.03	651.74
Inventories				
Sinking fund on local debentures				
Equity in H-E.P.C. systems	3,123.48	2,585.75	1,194.97	5,604.74
Other assets				
Total assets	26,788.20	30,743.88	7,370.86	27,042.09
Deficit			1,360.20	
Total	26,788.20	30,743.88	8,731.06	27,042.09
LIABILITIES				
Debenture balance	493.35	6,968.36		6,688.35
Accounts payable		174.64	51.10	
Bank overdraft				
Other liabilities	94.00	40.00		55.00
Total liabilities	587.35	7,183.00	51.10	6,743.35
RESERVES				
For equity in H-E.P.C. systems	3,123.48	2,585.75	1,194.97	5,604.74
For depreciation	38.85	4,292.60	1,322.37	4,117.30
Other reserves			162.62	
Total reserves	3,162.33	6,878.35	2,679.96	9,722.04
SURPLUS				
Debentures paid	13,506.65	10,697.75	6,000.00	9,311.65
Local sinking fund				
Operating surplus	9,531.87	5,984.78		1,265.05
Total surplus	23,038.52	16,682.53	6,000.00	10,576.70
Total liabilities, reserves and surplus	26,788.20	30,743.88	8,731.06	27,042.09
Percentage of net debt to total assets	2.5	25.5	0.8	31.5

"A"—Continued

Hydro Municipalities as at December 31, 1934

Napanee 2,827	Norwood 868	Omemee 551	Oshawa 22,444	Ottawa 132,551	Perth 4,052	Peterborough 22,850
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,495.14	....	....	56,776.03	356,107.80	5,101.01	75,202.75
....	457.53	360.32	....	706,403.51	3,932.82	98,652.41
39,541.22	23,178.85	11,239.37	184,826.61	726,782.28	47,128.69	215,275.06
....	....	....	....	173,164.85	....	....
8,069.18	4,609.18	2,676.00	41,495.31	308,749.13	22,427.35	97,775.33
16,422.24	4,822.00	2,471.56	98,871.03	274,361.60	21,250.52	94,908.79
3,957.70	1,848.52	667.86	15,857.18	117,462.18	4,157.07	54,071.29
....	....	....	....	....	....	....
2,762.59	4,139.32	1,540.92	6,415.16	33,307.59	4,882.62	52,450.46
....	....	....	....	....	....	....
....	2,447.51	....	8,831.65	....	23,606.94	29,771.74
73,248.07	41,502.91	18,956.03	413,072.97	2,696,338.94	132,487.02	718,107.83
8,706.94	3,513.23	2,683.72	18,547.76	32,728.07	13,398.70	330.00
....	9,000.00	....	....	38,000.00	36,084.67	....
8,097.39	192.34	95.10	60,403.81	102,693.49	7,869.94	29,796.26
4,143.52	....	....	7,306.40	18,303.58	7,787.00	3,568.09
....	....	....	....	667,485.50	....	249,030.17
18,124.41	3,155.66	....	225,862.78	65,541.31	38,313.32	140,270.73
....	....	....	108.32	....	246.11	....
112,320.33	57,364.14	21,734.85	725,302.04	3,621,090.89	236,186.76	1,141,103.08
....	....	....	....	....	....	....
112,320.33	57,364.14	21,734.85	725,302.04	3,621,090.89	236,186.76	1,141,103.08
32,533.28	26,673.19	3,197.79	238,083.23	916,661.33	49,229.69	527,920.00
....	....	....	37,078.52	38,251.52	200.00	13,651.24
....	....	....	....	....	....	6,413.69
524.84	347.90	65.00	21,284.66	....	2,109.14	168.00
33,058.12	27,021.09	3,262.79	296,446.41	954,912.85	51,538.83	548,152.93
18,124.41	3,155.66	....	225,862.78	65,541.31	38,313.32	140,270.73
3,651.48	10,065.80	6,483.48	46,558.84	958,387.56	37,510.96	105,349.74
3,042.69	....	....	17,449.93	165,426.43	....	9,425.22
24,818.58	13,221.46	6,483.48	289,871.55	1,189,355.30	75,824.28	255,045.69
37,466.72	10,426.81	8,802.21	71,916.77	63,338.67	59,170.31	....
....	....	....	....	667,485.50	....	249,030.17
16,976.91	6,694.78	3,186.37	67,067.31	745,998.57	49,653.34	88,874.29
54,443.63	17,121.59	11,988.58	138,984.08	1,476,822.74	108,823.65	337,904.46
112,320.33	57,364.14	21,734.85	725,302.04	3,621,090.89	236,186.76	1,141,103.08
35.1	49.8	15.0	59.4	9.9	25.2	39.8

STATEMENT

Balance Sheets of Electrical Departments of

EASTERN ONTARIO SYSTEM—Continued

Municipality	Picton	Port Hope	Prescott	Richmond	Russell
Population	3,313	4,520	3,083	413	P.V.
ASSETS	$ c.	$ c.	$ c.	$ c.	$ c.
Lands and buildings	10,806.23	6,757.73	2,761.54		
Substation equipment	2,004.66				
Distribution system—overhead	39,572.57	48,142.81	38,951.00	6,192.09	7,745.13
Distribution system—underground					
Line transformers	12,677.58	11,882.74	13,747.50	769.40	1,382.48
Meters	17,084.91	19,516.20	18,174.69	1,208.91	1,521.67
Street light equipment, regular	4,275.67	2,633.00	2,080.97	173.98	509.24
Street light equipment, ornamental					
Miscellaneous construction expense	2,702.42	1,095.61	899.17	642.54	1,199.88
Steam or hydraulic plant					
Old plant	3,105.28		11,808.35		
Total plant	92,229.32	90,028.09	88,423.22	8,986.92	12,358.40
Bank and cash balance	50.00	4,866.02		399.90	2,544.02
Securities and investments	14,000.00		3,000.00		
Accounts receivable	4,726.21	6,461.92	7,148.14	190.23	218.91
Inventories	3,733.99	1,273.26			
Sinking fund on local debentures					
Equity in H-E.P.C. systems	24,810.58	22,519.90	28,195.52	1,143.40	3,199.75
Other assets	1,230.95				
Total assets	140,781.05	125,149.19	126,766.88	10,720.45	18,321.08
Deficit					
Total	140,781.05	125,149.19	126,766.88	10,720.45	18,321.08
LIABILITIES					
Debenture balance		20,910.51		5,267.59	6,771.77
Accounts payable	2,452.00	1,956.60	3,153.42		31.98
Bank overdraft	1,177.98		810.82		
Other liabilities	1,186.00	3,371.85	161.51	35.25	
Total liabilities	4,815.98	26,238.96	4,125.75	5,302.84	6,803.75
RESERVES					
For equity in H-E.P.C. systems	24,810.58	22,519.90	28,195.52	1,143.40	3,199.75
For depreciation	13,787.85	7,169.44	32,687.29	1,041.92	1,760.68
Other reserves	1,401.01			52.84	
Total reserves	39,999.44	29,689.34	60,882.81	2,238.16	4,960.43
SURPLUS					
Debentures paid	5,730.32	58,089.49	23,979.34	1,232.41	3,228.23
Local sinking fund					
Operating surplus	90,235.31	11,131.40	37,778.98	1,947.04	3,328.67
Total surplus	95,965.63	69,220.89	61,758.32	3,179.45	6,556.90
Total liabilities, reserves and surplus	140,781.05	125,149.19	126,766.88	10,720.45	18,321.08
Percentage of net debt to total assets	4.1	25.6	4.2	55.4	45.0

"A"—Continued

Hydro Municipalities as at December 31, 1934

Smiths Falls 7,502	Stirling 949	Trenton 6,288	Tweed 1,287	Warkworth P.V.	Wellington 920	Westport 738
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
19,928.85	8,410.00	5,114.41	....	....	200.00	....
4,745.66	7,042.12	23,080.03	....	....	499.80	....
86,386.32	5,316.21	91,606.75	10,241.17	5,494.98	14,660.44	7,155.76
....	....	....	....	....	....	....
25,512.16	3,711.12	20,877.13	3,052.41	716.39	3,716.70	1,001.23
32,470.38	4,885.09	26,245.89	4,831.03	1,526.32	5,286.84	1,353.44
9,241.13	2,549.82	13,517.35	1,035.28	309.88	1,131.40	526.70
....	....	....	....	....	....	....
6,213.12	769.14	2,647.27	315.13	609.19	774.55	1,335.26
38,001.49	....	....	....	....	....	....
21,513.48	....	....	....	3,618.02	2,477.92	1,713.00
244,012.59	32,683.50	183,088.83	19,475.02	12,274.78	28,747.65	13,085.39
8,263.70	3,792.52	14,448.11	2,661.42	883.75	10.00	245.86
38,000.00	4,276.75	....	....	2,500.00	5,000.00	2,500.00
9,612.73	1,667.57	14,763.82	1,487.08	419.35	705.56	543.59
1,160.14	1,104.11	4,693.15	1,162.32	....	....	....
....	....	....	....	....	....	....
57,974.92	3,796.18	23,666.97	3,343.93	1,796.65	4,748.47	1,410.18
....	....	....	....	....	....	....
359,024.08	47,320.63	240,660.88	28,129.77	17,874.53	39,211.68	17,785.02
....	....	....	....	....	....	....
359,024.08	47,320.63	240,660.88	28,129.77	17,874.53	39,211.68	17,785.02
56,442.82	....	136,515.30	12,383.20	9,166.04	10,386.74	12,902.32
60.20	....	....	....	....	....	9.01
....	....	....	....	....	2,429.12	....
0.33	134.50	3,011.71	255.69	....	2.25	....
56,503.35	134.50	139,527.01	12,638.89	9,166.04	12,818.11	12,911.33
57,974.92	3,796.18	23,666.97	3,343.93	1,796.65	4,748.47	1,410.18
65,466.55	7,589.27	10,564.00	2,416.13	1,409.32	5,794.54	454.56
500.00	....	1,108.37	....	....	....	....
123,941.47	11,385.45	35,339.34	5,760.06	3,205.97	10,543.01	1,864.74
141,182.18	10,000.00	28,484.70	6,616.80	1,833.96	6,613.26	2,097.68
....	....	....	....	....	....	....
37,397.08	25,800.68	37,309.83	3,114.02	3,668.56	9,237.30	911.27
178,579.26	35,800.68	65,794.53	9,730.82	5,502.52	15,850.56	3,008.95
359,024.08	47,320.63	240,660.88	28,129.77	17,874.53	39,211.68	17,785.02
18.8	0.3	64.3	51.0	57.2	37.2	78.8

STATEMENT

Balance Sheets of Electrical Departments of

EASTERN ONTARIO SYSTEM—Concluded

Municipality	Whitby	Williamsburg	Winchester	EASTERN ONTARIO SYSTEM SUMMARY
Population	5,297	P.V.	930	
ASSETS	$ c.	$ c.	$ c.	$ c.
Lands and buildings	6,394.26		299.85	844,118.09
Substation equipment	34,200.41			945,187.49
Distribution system—overhead	44,648.41	2,581.09	9,564.12	2,497,863.90
Distribution system—underground				343,926.28
Line transformers	11,005.79	1,749.87	2,881.28	830,715.19
Meters	14,854.12	1,926.37	4,974.77	1,029,676.38
Street light equipment, regular	4,568.27	152.11	719.87	402,794.12
Street light equipment, ornamental				
Miscellaneous construction expense	5,715.59	135.85	583.12	230,465.02
Steam or hydraulic plant				108,852.49
Old plant	1,340.13		1,100.00	138,272.66
Plant not distributed				
Total plant	122,726.98	6,545.29	20,123.01	7,371,871.62
Bank and cash balance	5,135.01	5,025.08	2,133.50	264,599.88
Securities and investments		4,500.00	7,000.00	685,079.16
Accounts receivable	5,660.73	1,577.91	990.79	409,946.59
Inventories	168.55		46.80	85,101.30
Sinking fund on local debentures				932,697.67
Equity in H-E.P.C. systems	24,327.91	2,956.47	11,893.11	1,101,434.53
Other assets				4,439.75
Total assets	158,019.18	20,604.75	42,187.21	10,855,170.50
Deficit				8,189.44
Total	158,019.18	20,604.75	42,187.21	10,863,359.94
LIABILITIES				
Debenture balance	34,343.65		5,694.12	2,725,275.20
Accounts payable	13.41	39.18	182.28	124,478.21
Bank overdraft				17,880.24
Other liabilities	757.99	511.52	5.00	51,202.91
Total liabilities	35,115.05	550.70	5,881.40	2,918,836.56
RESERVES				
For equity in H-E.P.C. systems	24,327.91	2,956.47	11,893.11	1,101,434.53
For depreciation	19,232.66	1,966.07	7,138.30	1,715,819.19
Other reserves		432.02		417,919.28
Total reserves	43,560.57	5,354.56	19,031.41	3,235,173.00
SURPLUS				
Debentures paid	42,268.85	2,750.00	4,955.88	1,408,669.43
Local sinking fund				932,697.67
Operating surplus	37,074.71	11,949.49	12,318.52	2,367,983.28
Total surplus	79,343.56	14,699.49	17,274.40	4,709,350.38
Total liabilities, reserves and surplus	158,019.18	20,604.75	42,187.21	10,863,359.94
Percentage of net debt to total assets	26.3	3.1	19.4	22.5

"A"—Concluded

Hydro Municipalities as at December 31, 1934

THUNDER BAY SYSTEM

Fort William 24,709	Nipigon	Port Arthur 20,064	THUNDER BAY SYSTEM SUMMARY	ALL SYSTEMS GRAND SUMMARY
$ c.	$ c.	$ c.	$ c.	$ c.
48,927.62	215.03	405,816.74	454,959.39	10,262,692.98
123,548.71	....	240,640.36	364,189.07	22,327,618.75
145,645.14	13,535.66	449,485.59	608,666.39	21,353,725.80
....	....	....	....	6,031,767.74
64,145.76	2,578.67	67,234.03	133,958.46	9,635,279.35
62,405.52	2,423.33	91,206.90	156,035.75	8,624,504.78
30,220.06	606.24	77,611.27	108,437.57	2,395,296.48
....	....	....	....	1,464,306.73
6,359.31	133.53	49,496.86	55,989.70	3,907,359.92
....	....	323,341.74	323,341.74	494,932.96
293,762.46	....	....	293,762.46	4,978,079.44
....	....	....	....	200,000.00
775,014.58	19,492.46	1,704,833.49	2,499,340.53	91,675,564.93
5,371.37	2,203.86	149,843.65	157,418.88	2,215,914.31
57,200.00	....	620,494.69	677,694.69	2,382,446.41
29,835.29	802.82	83,118.02	113,756.13	4,001,596.09
2,301.54	....	20,619.43	22,920.97	1,110,705.38
72,867.32	....	193,780.04	266,647.36	9,161,419.77
284,329.89	1,765.75	963,397.68	1,249,493.32	29,274,340.46
....	....	521.71	521.71	289,158.19
1,226,919.99	24,264.89	3,736,608.71	4,987,793.59	140,111,145.54
....	....	....	....	80,859.63
1,226,919.99	24,264.89	3,736,608.71	4,987,793.59	140,192,005.17
300,000.00	6,416.84	297,896.64	604,313.48	39,646,989.68
22,946.34	....	131,318.68	154,265.02	3,149,035.07
16,749.46	....	....	16,749.46	143,556.95
11,321.87	....	....	11,321.87	3,669,008.56
351,017.67	6,416.84	429,215.32	786,649.83	46,608,590.26
284,329.89	1,765.75	963,397.68	1,249,493.32	29,274,340.46
80,083.25	3,479.00	448,706.38	532,268.63	17,426,809.32
13,580.73	....	66,766.03	80,346.76	2,056,820.81
377,993.87	5,244.75	1,478,870.09	1,862,108.71	48,757,970.59
367,650.00	3,583.16	344,203.36	715,436.52	20,608,129.73
72,867.32	....	193,780.04	266,647.36	9,161,419.77
57,391.13	9,020.14	1,290,539.90	1,356,951.17	15,055,894.82
497,908.45	12,603.30	1,828,523.30	2,339,035.05	44,825,444.32
1,226,919.99	24,264.89	3,736,608.71	4,987,793.59	140,192,005.17
32.0	28.5	9.1	15.0	35.9

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM

Municipality Population	Acton 1,885	Agincourt P.V.	Ailsa Craig 468	Alvinston 690	Amherstburg 3,128
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	10,376.00	4,961.90	2,672.24	4,049.73	17,738.01
Commercial light service	3,961.88	1,233.46	1,451.96	2,314.51	6,431.20
Commercial power service	23,219.38	1,266.75	1,019.14	226.77	4,460.76
Municipal power	667.19			315.96	
Street lighting	1,829.01	767.00	628.00	1,854.00	2,310.08
Merchandise	53.29				
Miscellaneous	243.93	89.28	367.79	90.00	329.82
Total earnings	40,350.68	8,318.39	6,139.13	8,850.97	31,269.87
EXPENSES					
Power purchased	32,133.90	5,463.45	4,468.57	6,979.55	21,308.34
Substation operation					
Substation maintenance					
Distribution system, operation and maintenance	1,972.45	39.79	100.95	20.10	2,122.11
Line transformer maintenance	81.95				342.79
Meter maintenance	71.76		6.56	116.55	53.05
Consumers' premises expenses	4.36	10.20			229.03
Street lighting, operation and maintenance	358.31	111.65	51.40	81.35	560.95
Promotion of business					
Billing and collecting	703.87		214.40	248.24	2,084.89
General office, salaries and expenses	466.09	309.10	87.33	205.22	1,109.32
Undistributed expenses	125.83		38.50	29.48	115.55
Truck operation and maintenance	124.31				230.18
Interest		223.19	7.89	682.01	1,388.60
Sinking fund and principal payments on debentures		603.27		1,106.03	1,376.74
Depreciation	1,368.00	371.00	460.00	619.00	1,898.00
Other reserves					
Total operating costs and fixed charges	37,410.83	7,131.65	5,435.60	10,087.53	32,819.55
Net surplus	2,939.85	1,186.74	703.53		
Net loss				1,236.56	1,549.68
NUMBER OF CONSUMERS					
Domestic service	486	142	130	153	585
Commercial light service	87	28	37	51	122
Power service	16	3	2	2	14
Total	589	173	169	206	721

"B"

Hydro Municipalities for Year Ended December 31, 1934

Ancaster Twp.	Arkona 397	Aylmer 1,987	Ayr 773	Baden P.V.	Beachville P.V.	Belle River 719	Blenheim 1,702
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8,791.70	2,709.77	10,695.03	5,170.53	3,866.23	2,814.26	3,389.23	8,807.18
1,659.64	1,689.52	7,216.59	1,769.35	1,458.83	667.67	1,424.16	6,390.37
506.53	193.84	2,622.57	198.39	5,429.78	9,144.46	349.52	2,951.00
309.33	...	845.40	...	...	...	1,112.89	1,527.07
1,053.76	960.00	2,343.00	1,027.99	650.00	517.00	760.00	2,511.00
...	...	...	...	...	...	...	...
...	...	978.20	18.06	98.90	240.53	190.81	126.36
12,320.96	5,553.13	24,700.79	8,184.32	11,503.74	13,383.92	7,226.61	22,312.98
7,217.85	3,878.43	15,670.36	5,830.46	8,377.99	12,357.30	4,660.89	13,418.04
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
946.22	125.59	1,945.06	596.25	104.95	10.80	324.42	907.89
30.10	...	27.95	279.45	31.52	...	3.09	239.14
276.60	14.45	138.72	139.26	220.53	28.46	184.11	884.19
...	...	...	...	...	...	...	42.06
180.12	62.00	310.58	100.78	253.50	78.74	191.79	554.34
...	...	...	...	...	...	...	...
...	179.70	627.67	334.99	565.77	261.76	245.75	800.03
1,512.35	66.10	1,013.14	63.15	14.39	181.56	263.24	1,408.57
...	33.82	103.55	45.90	40.30	16.83	36.13	66.09
524.36	600.05	1,156.61	350.46	109.88	123.33	332.44	513.79
308.56	594.19	1,351.44	367.09	220.15	234.46	413.81	505.45
886.00	330.00	1,393.00	557.00	383.00	613.00	683.00	1,378.00
...	...	110.00	...	...	...	...	...
11,882.16	5,884.33	23,848.08	8,664.79	10,321.98	13,906.24	7,338.67	20,717.59
438.80	...	852.71		1,181.76		...	1,595.39
...	331.20	...	480.47	...	522.32	112.06	...
271	98	644	205	136	133	198	496
37	37	137	45	34	20	43	125
5	2	9	3	3	4	4	10
313	137	790	253	173	157	245	631

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Blyth	Bolton	Bothwell	Brampton	Brantford
Population	626	553	685	5,550	30,611
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	3,857.20	3,588.00	2,875.02	37,832.02	187,064.16
Commercial light service	1,727.93	917.08	1,268.56	16,684.67	64,402.72
Commercial power service	997.85	1,975.02	594.73	15,653.24	188,213.43
Municipal power			145.43	2,575.94	25,835.17
Street lighting	1,300.00	1,113.96	1,293.00	5,453.16	33,080.33
Merchandise				103.15	
Miscellaneous	11.92		602.20	1,227.61	7,031.11
Total earnings	7,894.90	7,594.06	6,778.94	79,529.79	†505,626.92
EXPENSES					
Power purchased	4,659.25	5,246.93	4,561.66	61,467.03	340,712.51
Substation operation				117.42	5,593.23
Substation maintenance					2,073.31
Distribution system, operation and maintenance	164.84	254.65	116.92	2,917.04	13,456.58
Line transformer maintenance				431.56	1,446.76
Meter maintenance	62.79		8.06	390.37	4,619.67
Consumers' premises expenses					1,069.35
Street lighting, operation and maintenance	142.40	158.70	201.84	590.12	5,002.91
Promotion of business					
Billing and collecting	219.91		214.61	1,399.31	10,242.40
General office, salaries and expenses	22.78	426.40	103.28	1,463.37	8,270.05
Undistributed expenses	71.20		35.27	168.08	5,610.79
Truck operation and maintenance				367.05	2,137.40
Interest	490.93	290.03	187.74	651.06	22,732.87
Sinking fund and principal payments on debentures	1,040.13	563.91	180.52	1,904.80	50,540.27
Depreciation	450.00	561.00	554.00	4,476.00	22,754.00
Other reserves				148.38	4,000.00
Total operating costs and fixed charges	7,324.23	7,501.62	6,163.90	76,491.59	†500,262.10
Net surplus	570.67	92.44	615.04	3,038.20	5,364.82
Net loss					
NUMBER OF CONSUMERS					
Domestic service	162	163	171	1,386	7,478
Commercial light service	49	42	48	237	1,123
Power service	4	9	5	49	226
Total	215	214	224	1,672	8,827

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†Includes earnings and expenses from other plants.

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Brantford Twp.	Bridgeport P.V.	Brigden P.V.	Brussels 766	Burford P.V.	Burgess-ville P.V.	Caledonia 1,475	Campbell-ville P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
19,641.05	3,902.06	2,203.67	5,221.99	4,060.91	1,146.69	5,350.11	1,328.82
3,614.82	1,126.54	1,695.15	2,661.82	964.07	532.21	3,877.30	450.70
3,036.90	463.96	1,283.50	681.37	1,331.08		2,009.76	
4,065.42	588.50	745.00	1,284.00	670.00	312.00	1,544.96	474.00
585.45		170.56	115.79	247.47		329.75	
30,943.64	6,081.06	6,097.88	9,964.97	7,273.53	1,990.90	13,111.88	2,253.52
17,888.57	3,671.27	4,673.63	5,900.79	4,501.79	1,837.60	8,051.78	1,627.46
1,431.33	50.93	600.29	309.69	82.03	82.64	895.72	7.57
172.89				49.82	11.32	40.76	
535.42	60.00	124.77	65.08	292.12	96.09	210.40	
10.78							
979.68	85.72	56.89	148.05	78.45	23.00	185.91	24.48
1,728.71	269.39	206.60		429.00	125.68	524.20	
1,631.72	78.01	265.97	436.77	114.59	39.40	163.12	115.57
54.39	36.00	39.84	34.60	22.00	21.50	40.15	
1,235.05	596.85	49.66	728.51	19.10	41.81	26.28	160.28
3,545.24	607.92	285.05	1,028.77	382.11	269.45	254.90	272.63
2,447.00	524.00	358.00	588.00	482.00	211.00	792.00	118.00
31,660.78	5,980.09	6,660.70	9,240.26	6,453.01	2,759.49	11,185.22	2,325.99
	100.97		724.71	820.52		1,926.66	
717.14		562.82			768.59		72.47
801	119	104	214	173	50	337	45
46	19	43	66	33	16	88	9
5	5	5	2	4		6	
852	143	152	282	210	66	431	54

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Cayuga	Chatham	Chippawa	Clifford	Clinton
Population	693	16,140	1,051	440	1,848
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	3,428.46	82,155.22	7,216.68	2,437.55	11,791.74
Commercial light service	2,869.64	68,862.83	1,199.38	1,527.35	5,966.63
Commercial power service	1,331.20	48,944.37	251.08	128.59	4,583.94
Municipal power		6,000.28	872.21		971.56
Street lighting	1,440.00	19,095.53	1,161.00	868.00	1,988.53
Merchandise		449.03			177.89
Miscellaneous	115.82	3,354.06		4.72	1,043.99
Total earnings	9,185.12	228,861.32	10,700.35	4,966.21	26,524.28
EXPENSES					
Power purchased	5,166.51	126,130.59	5,851.54	3,153.88	16,448.87
Substation operation		6,642.94			238.83
Substation maintenance		2,318.30			
Distribution system, operation and maintenance	531.70	2,497.04	1,053.96	30.41	584.05
Line transformer maintenance	173.74	664.46			8.30
Meter maintenance	20.65	5,566.09	262.36		142.20
Consumers' premises expenses		536.75			
Street lighting, operation and maintenance	207.30	4,813.69	362.74	62.68	151.22
Promotion of business		1,053.00			
Billing and collecting	630.17	10,787.99	448.13	280.88	828.80
General office, salaries and expenses	278.81	13,153.38	566.65	60.28	2,182.70
Undistributed expenses	23.78	3,140.54	75.61	29.00	407.82
Truck operation and maintenance		2,489.57			200.81
Interest	760.11	13,774.14	411.98	381.86	2,277.21
Sinking fund and principal payments on debentures	928.69	15,236.87	796.15	178.82	1,305.66
Depreciation	542.00	15,760.00	907.00	297.00	1,940.00
Other reserves		3,168.51			
Total operating costs and fixed charges	9,263.46	227,733.86	10,736.12	4,474.81	26,716.47
Net surplus		1,127.46		491.40	
Net loss	78.34		35.77		192.19
NUMBER OF CONSUMERS					
Domestic service	124	3,758	319	101	511
Commercial light service	56	719	34	38	128
Power service	4	109	5	1	14
Total	184	4,586	358	140	653

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Comber P.V.	Cottam P.V.	Courtright 338	Dashwood P.V.	Delaware P.V.	Dorchester P.V.	Drayton 559	Dresden 1,469
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,175.65	2,501.42	1,620.01	1,422.82	1,360.24	2,305.63	3,136.66	6,355.74
2,307.06	1,198.59	924.35	876.92	565.31	842.29	1,957.82	5,186.24
3,329.62	324.85	63.39	.....	.....	533.43	999.34	4,300.13
.....	.....	787.66	.....	.....	.....	.....	727.92
471.00	465.00	774.00	451.00	264.00	612.47	750.00	1,862.24
.....	.....	.....	.....	.....	.....	.....	19.81
81.38	2.16	50.60	106.41	167.22	150.34	181.99	257.46
8,364.71	4,492.02	4,220.01	2,857.15	2,356.77	4,444.16	7,025.81	18,709.54
6,468.56	2,649.76	2,616.79	2,013.34	1,612.19	3,516.22	4,964.00	11,449.09
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
291.91	50.91	85.93	20.93	69.81	133.77	192.66	1,730.66
.....	60.08	.....		.....	7.35		.....
52.57	32.51	.....	1.95	.....	109.43	.....	343.68
.....	.....	.....	.....	.....	.....	.....	.....
81.68	59.25	68.89	38.61	40.40	119.97	103.54	370.75
.....	.....	.....	.....	.....	.....	.....	.....
271.56	.....	95.80	162.11	135.06	130.95	.....	495.78
508.00	426.43	64.04	8.48	110.50	19.53	236.66	826.99
26.50	.....	40.25	29.88	.....	23.25	30.00	45.57
.....	.....	.....	.....	.....	.....	.....	.....
95.63	385.43	243.37	119.92	108.05	131.34	395.68	36.27
497.55	375.49	629.06	117.80	152.16	155.73	305.26	726.04
452.00	356.00	225.00	212.00	150.00	353.00	537.00	867.00
.....	.....	.....	.....	.....	.....	.....	.....
8,745.96	4,395.86	4,069.13	2,725.02	2,378.17	4,700.54	6,764.80	16,891.83
.....	96.16	150.88	132.13	...		261.01	1,817.71
381.25	.....	.....	.....	21.40	256.38		
95	103	62	66	52	126	153	361
49	25	23	26	18	29	64	113
3	1	2	.....	.....	2	4	10
147	129	87	92	70	157	221	484

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—**Continued**

Municipality	Drumbo	Dublin	Dundas	Dunnville	Dutton
Population	P.V.	P.V.	5,032	3,632	798
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	2,072.51	1,321.41	20,932.77	13,511.52	3,363.41
Commercial light service	930.26	855.49	10,574.92	11,300.63	2,435.84
Commercial power service	592.25	405.34	18,822.09	12,243.69	3,395.33
Municipal power			658.97	2,367.63	
Street lighting	507.00	750.00	5,487.00	3,945.56	1,010.94
Merchandise					
Miscellaneous	70.04		195.67	451.41	302.58
Total earnings	4,172.06	3,332.24	56,671.42	43,820.44	10,508.10
EXPENSES					
Power purchased	2,519.92	2,257.84	37,112.42	23,893.04	7,399.82
Substation operation			247.35	135.26	
Substation maintenance					
Distribution system, operation and maintenance	127.28	65.74	5,965.92	1,802.63	399.84
Line transformer maintenance			54.48	19.80	
Meter maintenance	104.38	4.25	985.46	369.12	132.70
Consumers' premises expenses					
Street lighting, operation and maintenance	105.66	60.42	667.57	420.16	305.77
Promotion of business					
Billing and collecting	184.80	128.83	1,211.56	863.62	315.50
General office, salaries and expenses	97.25	65.66	1,507.52	1,199.11	166.09
Undistributed expenses	11.25	25.25	539.76	84.77	26.23
Truck operation and maintenance			571.13	121.57	
Interest	121.58	110.36	1,419.01	2,762.85	289.26
Sinking fund and principal payments on debentures	171.15	467.46	2,193.09	2,631.86	361.04
Depreciation	282.00	282.00	4,045.00	3,194.00	556.00
Other reserves					
Total operating costs and fixed charges	3,725.27	3,467.81	56,520.27	37,497.79	9,952.25
Net surplus	446.79		151.15	6,322.65	555.85
Net loss		135.57			
NUMBER OF CONSUMERS					
Domestic service	82	41	1,204	800	207
Commercial light service	26	24	199	200	71
Power service	1	2	39	32	7
Total	109	67	1,442	1,032	285

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

East Windsor 14,009	East York Twp.	Elmira 2,672	Elora 1,152	Embro 436	Erieau 273	Erie Beach 22	Essex 1,786
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
77,289.70	176,947.44	15,591.71	7,206.38	2,742.64	3,960.98	1,583.84	7,364.59
16,524.78	24,651.03	5,978.35	3,536.74	1,616.16	1,219.60	297.50	4,299.43
38,214.17	26,894.07	4,162.04	2,832.25	1,218.33	944.65		4,403.76
	5,374.94	873.43					1,585.84
8,419.92	19,553.92	1,834.00	1,674.00	676.00	369.00		3,046.99
			73.55				
	666.56	552.79	426.98	92.67	4.44	2.37	362.27
140,448.57	254,087.96	28,992.32	15,749.90	6,345.80	6,498.67	1,883.71	21,062.88
80,660.81	163,046.87	21,833.33	10,089.07	3,962.34	3,855.16	1,005.25	12,280.72
7,198.30	7,796.25	1,321.89	2,155.40	98.43	104.97	128.91	159.17
260.04	945.36	149.55	34.23	2.50	5.72		
2,683.01	4,694.00	161.54	122.05	29.35	53.28		70.44
3,819.33	1,332.16	2.29					3.60
3,053.66	2,491.09	129.62	113.70	218.68	67.49		308.12
2,007.76	99.31						
8,939.20	10,361.96	682.27	735.73	397.45	310.29	129.56	735.56
4,726.75	11,763.02	976.44	423.15	167.01	157.79	10.34	1,607.61
3,124.34	2,001.31	103.36	246.43	15.00	15.00	7.50	44.23
3,164.53	2,774.58	215.92	92.46				277.52
3,735.32	15,568.81	1,434.59	209.59	196.78	279.21	152.84	1,046.68
7,058.16	14,925.09	1,661.06	769.72	460.96	344.46	134.86	502.92
8,046.00	13,065.00	2,042.00	1,111.00	491.00	342.00	80.00	1,718.00
	404.32						
138,477.21	251,269.13	30,713.86	16,102.53	6,039.50	5,535.37	1,649.26	18,754.57
1,971.36	2,818.83			306.30	963.30	234.45	2,308.31
		1,721.54	352.63				
2,981	9,170	509	309	101	162	68	431
272	405	114	76	47	11	3	114
30	44	22	2	1	4		17
3,283	9,619	645	387	149	177	71	562

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Etobicoke Twp.	Exeter	Fergus	Fonthill	Forest
Population		1,606	2,560	872	1,487
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	104,459.43	11,436.89	15,798.86	4,992.13	10,818.08
Commercial light service	15,829.23	5,098.61	6,554.98	1,016.41	5,342.83
Commercial power service	14,235.44	3,781.60	10,750.26	317.32	4,031.11
Municipal power	4,281.47	544.56	904.20	242.30	967.12
Street lighting	13,443.87	1,995.25	2,714.31	1,065.00	2,321.00
Merchandise		32.64	15.52		
Miscellaneous	1,055.33	614.35	15.15		660.86
Total earnings	153,304.77	23,503.90	36,753.28	7,633.16	24,141.00
EXPENSES					
Power purchased	98,502.29	15,926.15	27,074.27	3,785.47	14,758.28
Substation operation					
Substation maintenance					
Distribution system, operation and maintenance	9,097.30	570.50	1,185.88	356.97	1,625.23
Line transformer maintenance	788.58	9.94	79.59		128.77
Meter maintenance	563.37	279.58	255.18	29.65	249.84
Consumers' premises expenses	104.80			5.88	
Street lighting, operation and maintenance	1,072.47	276.26	378.24	161.30	253.10
Promotion of business					34.71
Billing and collecting	4,780.17	746.78	752.53	599.10	550.08
General office, salaries and expenses	4,537.81	679.20	729.38	84.12	1,594.04
Undistributed expenses	1,786.48	85.02	143.03	15.00	162.10
Truck operation and maintenance	893.75	35.45	291.13		135.02
Interest	11,599.53	415.91	993.24	986.55	592.82
Sinking fund and principal payments on debentures	12,166.19	1,008.49	1,097.23	1,075.98	1,109.66
Depreciation	10,883.00	1,368.00	1,583.00	486.00	1,406.00
Other reserves	150.00				
Total operating costs and fixed charges	156,925.74	21,401.28	34,562.70	7,586.02	22,599.65
Net surplus		2,102.62	2,190.58	47.14	1,541.35
Net loss	3,620.97				
NUMBER OF CONSUMERS					
Domestic service	3,327	442	625	214	461
Commercial light service	205	110	120	32	126
Power service	24	8	15	4	22
Total	3,556	560	760	250	609

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Galt 14,057	George-town 2,224	Glencoe 827	Goderich 4,394	Granton P.V.	Guelph 21,048	Hagers-ville 1,355	Hamilton 153,504
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
94,350.55	14,474.82	5,488.93	30,584.44	1,924.52	110,143.65	5,010.61	928,800.72
41,016.94	6,225.70	3,310.81	13,451.34	1,066.06	50,712.24	4,620.29	361,025.55
81,695.12	21,902.11	1,681.16	12,291.97	709.56	103,309.34	12,439.59	1,617,692.20
4,512.62	683.27	1,370.16	3,508.99	......	14,253.12	......	57,500.35
20,594.00	2,146.00	1,945.64	3,791.50	370.00	18,549.86	1,732.00	123,817.93
......	11.34	......	206.05	......	367.56	......	......
2,858.73	886.85	64.24	42.39	174.74	447.70	821.77	45,098.10
245,027.96	46,330.09	13,860.94	63,876.68	4,244.88	297,783.47	24,624.26	3,133,934.85
156,137.39	35,607.21	9,060.79	41,498.88	3,308.09	218,637.85	18,861.65	2,166,877.85
4,364.05	......	......	1,905.12	......	......	......	57,901.60
237.46	......	......	......	......	3,542.04	......	5,910.91
3,046.61	1,085.29	171.45	1,703.98	17.95	10,921.32	2,014.22	29,247.52
271.32	46.67	......	18.42	......	720.43	41.72	4,175.52
2,136.79	224.65	110.83	841.77	99.44	3,358.83	377.88	16,926.00
15.10	1.48	......	......	......	256.06	......	12,694.56
2,448.77	292.72	286.85	567.94	56.75	5,692.00	378.74	12,122.68
1,979.84	......	......	......	......	158.41	......	12,267.36
3,846.67	1,574.37	497.30	1,890.29	186.78	6,288.89	728.53	50,918.83
5,334.76	933.80	361.50	1,803.09	72.51	11,224.60	616.14	42,839.38
5,421.50	193.73	35.62	111.27	25.25	1,194.05	54.58	41,781.05
696.18	654.18	......	214.37	......	1,297.30	745.29	......
14,141.28	678.53	470.81	2,645.71	134.49	2,541.44	217.06	217,988.40
19,039.31	811.33	1,035.43	2,345.32	126.33	1,103.55	392.46	291,666.47
23,422.14	2,065.00	932.00	5,391.00	234.00	12,696.00	1,118.00	129,882.34
1,000.00	......	......	......	......	500.00	......	......
243,539.17	44,168.96	12,962.58	60,937.16	4,261.59	280,132.77	25,546.27	3,093,200.47
1,488.79	2,161.13	898.36	2,939.52	......	17,650.70	......	40,734.38
......	......	......	......	16.71	......	922.01	......
3,601	675	218	1,170	81	5,039	334	37,330
488	130	82	235	34	768	108	5,064
116	26	6	20	1	139	16	1,262
4,205	831	306	1,425	116	5,946	458	43,656

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Harriston	Harrow	Hensall	Hespeler	Highgate
Population	1,321	928	697	2,798	343
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	7,874.26	7,395.41	4,173.05	16,998.75	1,837.56
Commercial light service	4,836.50	3,510.64	1,717.39	5,274.25	960.87
Commercial power service	5,220.06	3,778.91	2,588.29	34,392.00	1,063.93
Municipal power	482.42		34.22	1,163.03	39.60
Street lighting	1,479.00	1,288.63	996.00	2,965.00	570.00
Merchandise					
Miscellaneous		38.66	238.57	656.83	165.44
Total earnings	19,892.24	16,012.25	9,747.52	61,449.86	4,637.40
EXPENSES					
Power purchased	11,922.38	12,246.85	7,218.84	47,701.03	2,982.16
Substation operation				279.63	
Substation maintenance					
Distribution system, operation and maintenance	1,420.95	56.39	377.88	2,449.38	35.56
Line transformer maintenance		9.20		184.22	
Meter maintenance	132.15	140.11	5.45	316.15	9.55
Consumers' premises expenses		49.29		1.25	
Street lighting, operation and maintenance	322.39	304.78	130.95	549.24	133.52
Promotion of business					
Billing and collecting	849.76	566.30	326.64	697.33	324.35
General office, salaries and expenses	136.01	415.06	395.50	1,215.43	162.54
Undistributed expenses	75.94	23.47	54.38	495.89	25.25
Truck operation and maintenance	123.51			433.69	
Interest	530.82	499.83	401.21	1,850.79	158.79
Sinking fund and principal payments on debentures	759.98	551.13	465.97	1,881.48	174.97
Depreciation	995.00	716.00	650.00	2,566.00	347.00
Other reserves				150.00	
Total operating costs and fixed charges	17,268.89	15,578.41	10,026.82	60,771.51	4,353.69
Net surplus	2,623.35	433.84		678.35	283.71
Net loss			279.30		
NUMBER OF CONSUMERS					
Domestic service	343	257	182	684	95
Commercial light service	105	74	47	108	38
Power service	13	3	14	27	6
Total	461	334	243	819	139

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Humberstone 2,442	Ingersoll 5,104	Jarvis 531	Kingsville 2,354	Kitchener 31,252	Lambeth P.V.	La Salle 600	Leamington 5,004
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8,593.12	31,840.75	2,420.67	13,602.27	202,024.06	3,523.95	5,515.53	28,104.71
3,155.55	14,686.28	1,820.01	6,205.86	99,769.21	1,455.73	1,373.41	14,994.60
3,454.42	25,727.06	3,889.08	3,318.35	217,760.24		1,995.15	11,300.24
	2,125.68		1,210.91	22,427.51	569.90		5,937.39
1,367.00	4,851.48	840.00	2,994.46	32,018.76	432.00	495.00	5,691.85
	299.99						
271.71	556.56	46.05	1,180.25	5,767.86	118.00	143.50	857.65
16,841.80	80,087.80	9,015.81	28,512.10	579,767.64	6,099.58	9,522.59	66,886.44
9,477.40	57,507.78	5,900.96	16,014.16	427,218.17	4,386.19	6,474.84	41,390.30
	383.34			8,873.63			
				1,306.66			
666.78	2,496.83	46.73	1,429.23	9,226.73	175.49	214.38	2,423.46
	562.54		250.06	809.61	2.90		61.06
233.85	1,074.16	33.65	553.32	4,362.19	21.11	170.45	676.09
	73.15		39.50	1,847.43			66.51
178.15	310.25	31.83	727.72	7,723.68	24.48	20.50	1,047.22
	17.93			483.69			
	1,376.95	490.53	1,226.96	13,352.60	257.68	353.14	1,788.75
839.69	4,291.47	55.28	1,212.00	15,042.90	5.00	339.47	3,581.40
	473.50	26.50	346.99	5,520.48	15.92	79.00	561.85
96.00	415.81		369.47	2,033.05			601.17
1,128.53	3,504.18	320.90	1,720.94	9,886.90	154.36	679.78	1,989.36
1,300.00	1,677.35	514.37	715.90	15,380.70	136.24	671.58	2,204.53
932.00	3,678.00	403.00	1,907.00	31,334.00	341.00	832.00	3,402.00
14,852.40	77,843.24	7,823.75	26,513.25	554,402.42	5,520.37	9,835.14	59,793.70
1,989.40	2,244.56	1,192.06	1,998.85	25,365.22	579.21		7,092.74
						312.55	
520	1,282	121	704	7,173	110	151	1,342
65	234	44	172	975	25	17	252
5	44	4	12	265	1	4	28
590	1,560	169	888	8,413	136	172	1,622

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Listowel	London	London Twp.	Long Branch	Lucan
Population	2,775	73,726		3,550	528
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	17,505.46	518,046.47	11,307.27	24,085.71	4,584.29
Commercial light service	8,092.05	192,613.53	2,479.86	5,167.29	1,673.81
Commercial power service	10,982.27	325,422.56	1,707.94	1,029.18	394.28
Municipal power	1,590.07	55,724.47		1,001.23	
Street lighting	3,840.60	54,217.56	832.50	3,682.98	994.00
Merchandise		4,565.60			
Miscellaneous	1,161.34	35,227.05	410.61	183.17	298.49
Total earnings	43,171.79	1,185,817.24	16,738.18	35,149.56	7,944.87
EXPENSES					
Power purchased	29,611.83	782,717.61	12,074.89	19,832.28	5,283.90
Substation operation	76.10	16,113.19			
Substation maintenance		9,613.46			
Distribution system, operation and maintenance	2,482.00	21,571.45	453.50	3,613.31	699.04
Line transformer maintenance	13.48	3,770.96		218.43	
Meter maintenance	310.49	16,588.62	69.26	337.84	86.06
Consumers' premises expenses	36.21	4,238.28	24.88	42.74	
Street lighting, operation and maintenance	446.37	9,567.59	122.98	432.75	92.23
Promotion of business		14,109.44			
Billing and collecting	877.42	27,194.97	622.04	1,673.25	521.50
General office, salaries and expenses	656.14	39,483.60	595.74	1,906.87	386.33
Undistributed expenses	258.17	8,723.11	22.37	730.25	44.55
Truck operation and maintenance	187.35	4,865.88			
Interest	523.50	45,190.18	624.82	1,880.21	217.80
Sinking fund and principal payments on debentures	1,820.55	65,807.08	993.50	2,003.66	271.68
Depreciation	2,650.00	94,696.52	726.00	2,227.00	649.00
Other reserves		12,688.14		50.00	
Total operating costs and fixed charges	39,949.61	1,176,940.08	16,329.98	34,948.59	8,252.09
Net surplus	3,222.18	8,877.16	408.20	200.97	
Net loss					307.22
NUMBER OF CONSUMERS					
Domestic service	733	16,632	335	1,135	174
Commercial light service	149	2,820	24	100	47
Power service	20	477	5	5	6
Total	902	19,929	364	1,240	227

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Lynden P.V.	Markham 1,060	Merlin P.V.	Merritton 2,487	Milton 1,804	Milverton 1,002	Mimico 6,696	Mitchell 1,497
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,984.32	6,961.31	2,183.15	11,709.66	11,342.00	5,629.79	56,928.27	10,772.48
734.83	2,760.91	1,512.98	2,175.88	5,422.01	2,931.18	10,048.43	4,305.49
767.42	2,428.18	935.76	74,179.37	10,572.03	2,286.14	3,256.09	3,734.62
....	485.82	....	....	....	570.68	7,671.62	950.18
430.00	1,356.00	688.00	3,352.00	2,033.81	999.00	7,002.00	2,088.00
....	....	....	....	....	....	....	143.14
5.53	147.81	309.18	....	1,588.49	79.75	176.06	1,014.68
3,922.10	14,140.03	5,629.07	91,416.91	30,958.34	12,496.54	85,082.47	23,008.59
3,128.15	9,446.31	3,295.35	79,700.75	22,088.40	8,533.51	54,629.96	14,893.50
....	....	....	322.57	244.77	....	....	423.99
....	....	....	....	....	....	....	....
174.44	998.27	199.39	2,367.96	2,018.58	289.51	6,946.31	690.84
....	62.54	9.20	82.76	....	....	178.23	1.50
45.20	116.33	29.41	410.94	100.22	94.56	554.58	212.86
....	....	....	10.84	....	....	....	....
28.63	149.44	100.10	786.61	259.16	115.76	923.02	130.08
....	....	....	....	83.06	....	....	....
128.85	....	227.54	985.24	795.48	600.48	1,766.33	818.55
55.72	757.30	192.92	1,857.85	1,999.84	235.48	1,726.05	1,595.55
20.00	....	15.00	222.89	205.57	214.35	273.20	856.17
....	293.22	....	365.87	323.34	....	548.59	224.67
146.60	70.35	470.54	978.71	778.65	126.59	4,775.70	5.35
162.68	391.94	712.06	1,586.38	738.38	714.35	5,655.59	....
278.00	815.00	368.00	2,074.00	1,940.24	700.00	5,511.00	3,155.00
....	....	....	....	....	199.98	....	....
4,168.27	13,100.70	5,619.51	91,753.37	31,575.69	11,824.57	83,488.56	23,008.06
....	1,039.33	9.56	....	....	671.97	1,593.91	.53
246.17	....	....	336.46	617.35	....	....	....
82	271	106	635	438	228	1,769	460
21	66	43	63	105	72	139	113
1	10	1	10	21	7	17	25
104	347	150	708	564	307	1,925	598

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality Population	Moorefield P.V.	Mount Brydges P.V.	Newbury 256	New Hamburg 1,457	New Toronto 7,484
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	1,159.27	2,755.72	1,197.60	10,256.68	34,857.29
Commercial light service	617.87	864.47	793.88	4,049.52	13,017.84
Commercial power service	1,069.57	883.68	723.89	4,822.52	106,170.83
Municipal power					11,960.28
Street lighting	375.00	520.00	720.00	2,202.00	8,697.48
Merchandise				194.98	
Miscellaneous	49.68	306.72	16.18	157.61	18.05
Total earnings	3,271.39	5,330.59	3,451.55	21,683.31	174,721.77
EXPENSES					
Power purchased	2,363.74	3,877.45	2,100.51	14,122.97	145,023.44
Substation operation				259.20	
Substation maintenance					
Distribution system, operation and maintenance	23.74	49.52	79.16	437.50	4,367.62
Line transformer maintenance		18.40		30.03	389.58
Meter maintenance		45.79		489.10	744.84
Consumers' premises expenses					
Street lighting, operation and maintenance	24.93	20.10	50.53	350.88	2,257.51
Promotion of business					
Billing and collecting		196.74		600.59	2,715.19
General office, salaries and expenses	129.20	145.79	125.46	749.51	4,487.16
Undistributed expenses		28.63	25.25	78.87	1,665.98
Truck operation and maintenance				253.38	839.91
Interest	83.17	129.24	264.00	339.66	768.39
Sinking fund and principal payments on debentures	307.36	161.12	500.00	832.16	319.49
Depreciation	192.00	307.00	299.00	1,298.00	5,442.00
Other reserves					
Total operating costs and fixed charges	3,124.14	4,979.78	3,443.91	19,841.85	169,021.11
Net surplus	147.25	350.81	7.64	1,841.46	5,700.66
Net loss					
NUMBER OF CONSUMERS					
Domestic service	58	140	63	337	1,488
Commercial light service	22	32	23	90	176
Power service	2	3	2	13	31
Total	82	175	88	440	1,695

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Niagara Falls 18,060	Niagara-on-the-Lake 1,614	North York Twp.	Norwich 1,196	Oil Springs 462	Otterville P.V.	Palmerston 1,600	Paris 4,297
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
138,473.29	14,141.76	103,317.07	8,205.54	1,620.31	2,170.36	10,176.68	23,530.97
54,104.91	3,566.41	16,424.74	3,270.25	1,299.15	1,652.03	5,051.24	8,417.47
53,421.00	927.89	27,467.85	1,350.75	7,499.30	9.00	4,611.25	12,072.80
17,913.33	1,822.17	4,930.78	750.60	.....	111.78	2,182.68	1,225.00
28,355.65	2,859.00	3,707.32	2,120.00	750.00	786.00	1,941.57	5,450.50
.....	461.14	.....	173.09	.....	.....	.....	.....
.....	442.87	1,934.59	180.00	486.83	94.16	5.99	1,870.47
292,268.18	24,221.24	157,782.35	16,050.23	11,655.59	4,823.33	23,969.41	52,567.21
183,558.86	12,650.43	88,048.39	11,344.66	7,334.67	3,780.71	15,855.02	31,853.71
9,541.53	.....	.....	.....	.....	.....	68.71	.....
.....	.....	.....	.....	.....	.....	.....	1,679.04
6,307.53	2,239.09	7,606.71	1,195.61	655.09	48.59	683.00	3,176.07
628.68	40.80	393.92	17.49	.....	26.63	41.27	39.05
7,306.42	303.24	641.79	207.68	46.65	129.43	109.60	666.22
320.89	.....	125.49	.....	.....	.....	.....	1.10
3,567.84	691.29	759.66	162.05	30.84	75.56	419.22	689.81
.....	.....	.....	.....	.....	.....	.....	.....
7,662.03	963.39	4,599.14	406.38	422.34	295.97	561.18	1,375.40
9,134.65	1,048.43	2,888.37	450.99	339.01	41.55	716.91	1,366.35
4,132.38	110.84	2,954.07	37.31	75.01	26.25	38.53	220.51
3,249.86	402.94	2,592.71	112.89	.....	.....	128.87	304.32
19,223.83	1,248.09	20,217.36	307.39	296.70	51.54	276.76	572.10
25,848.36	1,002.69	16,798.54	593.60	1,195.88	349.16	917.02	734.83
23,752.00	1,594.00	11,840.00	857.00	717.00	450.00	1,184.00	5,125.00
.....	.....	.....	.....	.....	.....	.....	137.13
304,234.86	22,295.23	159,466.15	15,693.05	11,113.19	5,275.39	21,000.09	47,940.64
.....	1,926.01	.....	357.18	542.40	.....	2,969.32	4,626.57
11,966.68	.....	1,683.80	.....	.....	452.06	.....	.....
4,366	466	2,920	346	74	111	399	1,063
665	79	240	89	29	44	95	180
87	11	38	6	30	2	10	25
5,118	556	3,198	441	133	157	504	1,268

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Parkhill	Petrolia	Plattsville	Point Edward	Port Colborne
Population	1,021	2,715	P.V.	1,336	5,417
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	4,835.48	11,888.16	2,500.67	5,620.87	29,269.73
Commercial light service	3,094.20	6,455.77	1,067.27	1,855.65	12,496.18
Commercial power service	169.98	22,142.83	651.88	22,513.59	6,821.61
Municipal power	583.43				6,889.39
Street lighting	1,437.00	2,652.00	408.00	1,593.48	7,740.14
Merchandise		97.97			125.37
Miscellaneous	3.50	479.18	7.27	701.64	
Total earnings	10,123.59	43,715.91	4,635.09	32,285.23	63,342.42
EXPENSES					
Power purchased	8,058.37	27,560.07	3,029.86	26,792.98	34,988.37
Substation operation					
Substation maintenance		11.97			
Distribution system, operation and maintenance	177.75	2,828.19	43.94	255.16	1,720.49
Line transformer maintenance		278.77		51.70	117.10
Meter maintenance	100.75	651.26		96.10	682.66
Consumers' premises expenses					52.58
Street lighting, operation and maintenance	169.51	212.14	31.60	200.80	1,705.06
Promotion of business					60.58
Billing and collecting	322.60	506.65	171.09		1,701.41
General office, salaries and expenses	128.45	2,021.14	6.58	1,962.79	3,505.76
Undistributed expenses	39.56	170.33	30.25	47.48	199.97
Truck operation and maintenance		232.73			1,081.51
Interest	357.10	1,351.27	141.52	479.68	4,223.41
Sinking fund and principal payments on debentures	1,040.20	2,364.68	199.15	1,002.44	7,121.30
Depreciation	711.00	2,919.00	274.00	1,071.00	4,438.00
Other reserves		400.00			
Total operating costs and fixed charges	11,105.29	41,508.20	3,927.99	31,960.13	61,598.20
Net surplus		2,207.71	707.10	325.10	1,744.22
Net loss	981.70				
NUMBER OF CONSUMERS					
Domestic service	240	696	95	299	1,305
Commercial light service	79	166	25	46	227
Power service	3	57	1	10	21
Total	322	919	121	355	1,553

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Port Credit 1,650	Port Dalhousie 1,495	Port Dover 1,692	Port Rowan 692	Port Stanley 742	Preston 6,189	Princeton P.V.	Queenston P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
13,605.90	13,663.90	7,655.78	3,593.62	13,455.53	38,287.60	2,068.19	2,945.67
5,172.31	2,129.27	4,253.13	1,620.70	3,749.74	16,122.95	728.69	912.69
1,619.25	4,869.74	4,745.95	83.71	3,337.02	34,413.07	3,028.37	
1,112.37				822.37	1,075.02		
2,710.00	1,636.25	3,101.00	1,242.00	2,045.63	5,004.09	481.00	304.42
238.57			22.00	328.49	1,556.29	11.22	32.00
24,458.40	22,299.16	19,755.86	6,562.03	23,738.78	96,459.02	6,317.47	4,194.78
18,322.07	15,670.44	10,769.54	3,394.68	14,176.76	63,670.95	4,752.36	2,501.98
					4,370.58		
					61.03		
1,060.85	1,634.77	1,124.44	146.60	1,817.18	2,333.22	3.67	76.22
28.64	40.97	48.08		52.20	672.79	39.86	
288.56	250.45	503.34		167.42	1,410.07	31..22	
					118.93		
399.97	278.03	453.54	23.45	183.59	869.87	75.78	10.00
683.80	723.46	418.60	92.02	686.51	1,669.77	175.01	
355.98	761.97	670.59	110.64	696.03	1,410.61	25.12	346.43
45.00	74.70	55.20	15.00	71.74	769.75	14.00	
	269.70			234.10	401.58		
420.34	649.28	428.73	699.75	370.39	2,527.55	95.92	180.22
561.85	1,167.80	1,217.63	424.18	862.43	5,470.44	135.01	492.77
1,496.00	947.00	1,316.00	345.00	1,273.00	8,400.00	254.00	338.00
					300.00		
23,663.06	22,468.57	17,005.69	5,251.32	20,591.35	94,457.14	5,601.95	3,945.62
795.34		2,750.17	1,310.71	3,147.43	2,001.88	715.52	249.16
	169.41						
398	560	496	101	606	1,561	76	70
75	48	128	31	97	241	20	11
6	13	11	1	9	48	3	
479	621	635	133	712	1,850	99	81

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Richmond Hill	Ridgetown	Riverside	Rockwood	Rodney
Population	1,299	1,914	4,975	P.V.	748
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	7,453.62	9,251.64	37,310.96	3,114.32	3,394.73
Commercial light service	3,772.41	4,947.97	4,128.74	1,017.28	2,251.08
Commercial power service	2,094.54	3,135.34	7,812.02	236.51	1,980.35
Municipal power	421.50	873.69	1,657.10		
Street lighting	1,389.00	3,122.50	2,499.96	765.00	982.02
Merchandise					
Miscellaneous	165.20	704.84	261.43	46.23	150.00
Total earnings	15,296.27	22,035.98	53,670.21	5,179.34	8,758.18
EXPENSES					
Power purchased	10,134.08	15,102.87	34,813.01	3,512.96	6,174.84
Substation operation					
Substation maintenance					
Distribution system, operation and maintenance	1,382.67	1,069.55	564.48	102.41	381.62
Line transformer maintenance		258.28	70.29		
Meter maintenance		403.28	727.07	59.61	169.66
Consumers' premises expenses		110.32	1,673.28		
Street lighting, operation and maintenance	232.86	448.32	704.22	90.67	118.40
Promotion of business	5.60	5.92	692.92	35.80	
Billing and collecting	875.18	800.50	3,560.25		369.76
General office, salaries and expenses	395.72	1,040.23	1,756.21	499.60	408.17
Undistributed expenses	31.29	77.12	949.25		24.67
Truck operation and maintenance		186.43	717.88		
Interest	221.09	410.51	3,448.56	117.25	303.67
Sinking fund and principal payments on debentures	713.67	379.12	3,986.52	83.36	291.57
Depreciation	560.00	1,343.00	3,999.00	436.00	429.00
Other reserves					
Total operating costs and fixed charges	14,552.16	21,635.45	57,662.94	4,937.66	8,671.36
Net surplus	744.11	400.53		241.68	86.82
Net loss			3,992.73		
NUMBER OF CONSUMERS					
Domestic service	329	558	1,088	148	202
Commercial light service	65	147	50	35	74
Power service	17	19	8	2	7
Total	411	724	1,146	185	283

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

St. Catharines 26,161	St. Clair Beach 81	St. George P.V.	St. Jacobs P.V.	St. Marys 4,023	St. Thomas 16,072	Sandwich 10,559
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
143,939.49	1,848.63	2,949.80	3,942.31	29,587.34	115,912.65	87,689.76
49,059.69	1,425.73	1,099.16	1,227.43	10,308.31	48,724.75	15,952.72
98,942.44	262.14	2,059.66	1,145.51	14,790.94	48,413.74	13,311.52
				2,907.23	5,920.76	
20,561.66		370.50	460.00	4,660.16	14,656.97	8,458.14
						194.09
3,285.29		75.04	147.83		3,535.18	661.78
315,788.57	3,536.50	6,554.16	6,923.08	62,253.98	237,164.05	126,268.01
205,037.29	2,297.59	5,453.52	5,276.70	45,729.02	169,390.10	87,384.71
4,223.33				1,235.12	7,373.61	
				150.15	753.99	75.15
12,686.64	112.93	4.14	35.93	1,439.71	9,607.52	2,708.83
2,115.76	1.95			19.90	470.75	594.38
4,792.07	51.95	10.13	17.10	739.72	2,413.33	1,384.49
2,253.60	52.95			5.66	2,365.61	671.07
4,161.57		100.53	51.25	667.67	2,316.09	1,529.38
19.91	10.19			35.92	97.32	
10,513.61	165.75	541.24	261.00	1,330.87	5,333.37	5,840.95
10,007.50	26.09	56.16	82.45	1,133.09	9,836.07	6,295.47
4,294.85	88.68	25.75	15.00	704.28	5,809.30	942.21
2,244.05	56.00			388.34	1,016.24	1,101.11
10,209.98	281.76	184.93	107.95	2,278.11	1,934.66	5,856.00
13,315.40	357.09	227.90	405.32	2,257.08	3,236.79	6,824.73
17,413.00	332.00	312.00	352.00	4,371.00	13,082.00	5,931.00
303,288.56	3,834.93	6,916.30	6,604.70	62,485.64	235,036.75	127,139.48
12,500.01			318.38		2,127.30	
	298.43	362.14		231.66		871.47
6,414	39	132	113	1,034	4,060	2,457
716	5	37	28	183	639	202
153	1	3	6	32	76	27
7,283	45	172	147	1,249	4,775	2,686

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—**Continued**

Municipality	Sarnia	Scarboro' Twp.	Seaforth	Simcoe	Springfield
Population	17,620		1,697	5,174	372
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	108,430.08	95,233.61	10,688.44	21,450.54	1,775.06
Commercial light service	46,211.30	20,281.81	5,223.45	23,848.73	734.68
Commercial power service	167,019.50	10,086.88	4,081.29	24,251.23	1,262.21
Municipal power	5,366.17	12,120.75	789.47	1,927.97	
Street lighting	18,623.73	14,346.96	1,788.00	4,514.83	552.75
Merchandise	552.89				
Miscellaneous	8,311.79	1,205.50	4.50	906.26	233.55
Total earnings	354,515.46	153,275.51	22,575.15	76,899.56	4,558.25
EXPENSES					
Power purchased	237,602.84	85,070.69	15,156.79	45,038.42	3,273.04
Substation operation	8,450.59		150.85	558.72	
Substation maintenance	82.43	38.78			
Distribution system, operation and maintenance	7,291.89	5,770.68	2,183.33	3,515.87	37.48
Line transformer maintenance	552.56	704.96	40.51	122.37	
Meter maintenance	3,253.76	971.02	210.71	1,198.06	4.80
Consumers' premises expenses	638.33	105.91		43.15	
Street lighting, operation and maintenance	5,384.73	1,994.21	239.77	788.63	77.15
Promotion of business	1,638.65		472.70		
Billing and collecting	8,167.40	6,518.87	773.46	1,692.50	233.35
General office, salaries and expenses	11,529.97	5,699.23	393.52	2,423.26	200.28
Undistributed expenses	5,990.64	2,106.50	106.71	452.46	11.25
Truck operation and maintenance	2,668.31	1,782.72	230.60	521.75	
Interest	7,528.16	10,794.35	7.47	2,508.48	200.70
Sinking fund and principal payments on debentures	21,624.84	14,169.75		3,103.66	177.94
Depreciation	18,129.00	11,240.00	1,830.00	3,460.00	350.00
Other reserves					
Total operating costs and fixed charges	340,534.10	146,967.67	21,796.42	65,427.33	4,565.99
Net surplus	13,981.36	6,307.84	778.73	11,472.23	
Net loss					7.74
NUMBER OF CONSUMERS					
Domestic service	4,507	4,483	474	1,207	97
Commercial light service	615	361	117	314	30
Power service	84	36	14	38	4
Total	5,206	4,880	605	1,559	131

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Stamford Twp.	Stouffville 1,174	Stratford 18,673	Strathroy 2,887	Sutton 806	Tavistock 1,050	Tecumseh 2,423	Thamesford P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
54,149.44	7,017.62	148,616.88	20,711.72	7,298.86	6,973.88	13,661.18	2,495.30
6,926.87	2,824.27	53,007.40	9,857.75	2,878.02	2,078.20	3,418.64	1,401.50
7,097.21	860.47	52,668.20	9,642.88	1,004.28	9,260.41	1,492.87	3,548.72
1,891.39		10,762.45	1,664.95		479.80		
7,656.75	1,638.00	16,458.81	4,050.96	1,886.50	1,225.66	960.00	517.00
326.61		137.73					
612.11	330.22	7,136.31	1,200.17	120.74	493.32		387.19
78,660.38	12,670.58	288,787.78	47,128.43	13,188.40	20,511.27	19,532.69	8,349.71
37,726.89	8,421.96	191,045.49	29,573.77	9,022.84	16,648.72	9,660.87	6,332.50
618.14		4,767.58	288.10				
		1,422.47	108.53				
4,205.02	819.10	5,328.04	1,111.62	575.20	441.22	543.11	198.22
16.00		291.50	548.23		17.15	64.63	
1,095.60		2,205.45	609.13		201.19	466.01	170.98
300.31		439.58	57.00			379.11	2.50
1,500.34	164.56	2,816.83	498.05	198.88	101.79	254.92	49.74
571.44			163.83			177.42	
3,149.67		5,251.34	870.81		619.96	1,649.70	123.40
4,079.10	377.23	2,951.70	1,778.25	601.75	159.49	383.53	150.53
1,288.44		7,234.08	430.90		65.64	420.80	29.00
1,574.12		1,033.23	294.71			442.33	
9,271.46	364.56	21,775.00	1,800.54	896.03	183.33	1,188.18	85.03
11,133.25	1,596.02	9,239.60	1,524.44	1,420.67	206.98	1,404.37	218.89
5,983.00	531.00	20,357.00	3,266.00	876.00	800.00	1,515.00	445.00
		1,700.00					
82,512.78	12,274.43	277,858.89	42,923.91	13,591.37	19,445.47	18,549.98	7,805.79
	396.15	10,928.89	4,204.52		1,065.80	982.71	543.92
3,852.40				402.97			
1,668	339	4,298	809	399	256	504	124
93	86	618	171	79	72	50	41
13	5	131	27	4	7	3	7
1,774	430	5,047	1,007	482	335	557	172

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA SYSTEM—Continued

Municipality	Thamesville	Thedford	Thorndale	Thorold	Tilbury
Population	763	572	P.V.	4,945	1,897
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	3,938.61	3,032.53	1,391.02	18,646.70	6,979.95
Commercial light service	2,596.58	1,978.94	909.59	6,594.17	7,364.40
Commercial power service	1,859.09	1,401.97	252.97	30,285.73	6,989.06
Municipal power	241.65			4,022.88	225.00
Street lighting	1,193.52	1,035.00	384.00	3,663.50	1,591.20
Merchandise					
Miscellaneous	349.82	63.94	10.97	378.93	550.33
Total earnings	10,179.27	7,512.38	2,948.55	63,591.91	23,699.94
EXPENSES					
Power purchased	6,177.66	4,855.61	2,622.75	45,683.43	16,038.73
Substation operation				2,281.61	
Substation maintenance					
Distribution system, operation and maintenance	609.46	100.89	80.77	2,389.30	1,731.01
Line transformer maintenance					31.82
Meter maintenance	99.79	12.80		285.03	147.84
Consumers' premises expenses				15.61	
Street lighting, operation and maintenance	245.55	86.09	41.99	664.59	469.75
Promotion of business					
Billing and collecting	243.36	219.62	61.57	1,244.94	726.60
General office, salaries and expenses	272.28	81.80	27.65	1,030.05	960.65
Undistributed expenses	48.66	18.25	11.25	204.88	193.42
Truck operation and maintenance				331.54	146.49
Interest	242.85	540.74	71.21		403.53
Sinking fund and principal payments on debentures	587.10	902.57	91.42		675.51
Depreciation	766.00	395.00	240.00	2,784.00	1,163.00
Other reserves					
Total operating costs and fixed charges	9,292.71	7,213.37	3,248.61	56,914.98	22,688.35
Net surplus	886.56	299.01		6,676.93	1,011.59
Net loss			300.06		
NUMBER OF CONSUMERS					
Domestic service	217	131	60	1,166	423
Commercial light service	70	39	23	191	134
Power service	7	3	1	17	14
Total	294	173	84	1,374	571

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Tillsonburg 3,380	Toronto 626,674	Toronto Twp.	Trafalgar Twp. Area No. 1	Trafalgar Twp. Area No. 2	Walkerville 10,458	Wallaceburg 4,457
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
15,509.18	3,940,857.77	60,681.43	13,991.77	5,818.71	105,974.52	19,094.33
12,131.26	2,983,712.69	13,976.92	663.51	......	29,693.55	10,407.36
10,918.66	3,358,716.36	8,086.71	533.41	......	144,910.10	50,644.31
755.81	1,328,189.65	......	......	......	......	1,875.71
4,379.28	533,936.40	4,975.20	......	......	11,640.96	4,168.00
355.57	......	......	......	......	3,880.41	......
475.99	283,200.25	1,265.31	320.30	105.00	2,492.70	1,629.79
44,525.75	12,428,613.12	88,985.57	15,508.99	5,923.71	298,592.24	87,819.50
28,202.87	6,676,750.66	51,638.63	7,534.40	2,593.00	218,495.39	61,579.66
1,016.79	205,890.03	......	......	......	5,532.69	252.00
......	253,206.29	......	......	......	1,271.25	......
3,000.21	329,903.74	4,187.97	2,080.28	438.49	4,924.34	1,940.98
47.38	35,491.89	185.42	......	......	188.53	31.99
465.27	96,805.75	348.15	5.35	47.70	2,898.76	811.00
......	276,060.59	......	......	......	5,857.53	......
980.17	116,045.39	956.75			2,468.14	734.60
......	149,169.54	......	......	......	3,404.34	1,008.29
1,000.46	341,725.75	3,079.20	......	......	5,266.79	2,184.18
3,551.69	357,025.76	4,488.71	1,397.61	524.77	9,610.64	2,587.79
162.18	*132,064.49	429.70	109.09	38.86	6,083.04	1,353.89
592.52	......	1,906.29	254.39	......	2,179.88	981.32
461.76	1,328,484.07	3,511.04	693.82	520.96	6,692.07	2,592.63
1,079.24	1,287,878.00	5,437.99	979.77	......	16,105.89	2,905.92
3,264.00	850,392.62	8,810.00	1,174.00	325.00	16,943.00	4,807.00
38.66	......	......	......	......	......	......
43,863.20	12,436,894.57	84,979.85	14,228.71	4,488.78	307,922.28	83,771.25
662.55	......	4,005.72	1,280.28	1,434.93	......	4,048.25
......	8,281.45	......	......	......	9,330.04	......
905	154,321	1,969	266	148	2,522	1,040
239	25,281	183	2	......	314	234
31	5,144	23	9	......	87	29
1,175	184,746	2,175	277	148	2,923	1,303

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*Includes $25,817.88 provision for York township profit.

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—Continued

Municipality	Wards-ville	Water-down	Waterford	Waterloo	Watford
Population	240	919	1,213	8,714	941
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	1,105.32	5,682.98	6,537.53	61,882.58	6,272.18
Commercial light service	1,181.89	1,774.40	1,625.85	21,335.54	3,341.42
Commercial power service		2,003.95	4,309.62	25,210.32	2,304.08
Municipal power			309.96	3,571.79	401.89
Street lighting	720.00	932.00	1,514.00	7,514.42	1,344.96
Merchandise				402.26	144.10
Miscellaneous	1.04	38.26	272.54	514.32	282.07
Total earnings	3,008.25	10,431.59	14,569.50	120,431.23	14,090.70
EXPENSES					
Power purchased	1,912.27	6,568.65	11,362.71	82,258.71	9,345.12
Substation operation				2,282.68	
Substation maintenance				821.81	
Distribution system, operation and maintenance	32.18	308.00	439.70	3,529.19	866.07
Line transformer maintenance		21.55	28.52		
Meter maintenance	20.75	67.70	46.05	536.93	120.16
Consumers' premises expenses				79.32	
Street lighting, operation and maintenance	52.57	73.40	326.81	1,142.40	130.31
Promotion of business					306.08
Billing and collecting		509.94	556.33	2,110.63	527.85
General office, salaries and expenses	198.57	156.41	278.60	3,089.28	657.34
Undistributed expenses		25.00	30.44	288.18	27.01
Truck operation and maintenance				1,032.96	115.99
Interest	674.73			2,873.11	84.97
Sinking fund and principal payments on debentures				5,141.88	751.82
Depreciation	246.00	830.00	1,000.00	8,947.00	783.00
Other reserves					
Total operating costs and fixed charges	3,137.07	8,560.65	14,069.16	114,134.08	13,715.72
Net surplus		1,870.94	500.34	6,297.15	374.98
Net loss	128.82				
NUMBER OF CONSUMERS					
Domestic service	52	227	315	1,868	272
Commercial light service	22	36	74	243	73
Power service		6	10	75	5
Total	74	269	399	2,186	350

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Welland 10,655	Wellesley P.V.	West Lorne 776	Weston 4,828	Wheatley 754	Windsor 61,173	Wood-bridge 740	Woodstock 11,007
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
50,577.63	2,838.42	2,957.12	42,202.72	3,905.06	511,282.35	6,305.43	73,933.41
28,858.24	1,534.96	1,392.58	9,284.20	2,598.56	227,281.25	1,799.56	37,360.16
61,434.95	1,796.02	833.03	35,909.34	1,185.20	177,649.32	4,186.45	50,551.05
3,218.30			594.67	507.02	11,614.41	394.90	2,998.39
10,864.34	720.00	1,010.00	7,606.38	1,311.00	76,078.97	900.00	8,064.05
723.49							8.83
5,087.75	11.35	137.82	1,118.37	82.50		50.91	5,139.63
160,764.70	6,900.75	6,330.55	96,715.68	9,589.34	1,003,906.30	13,637.25	178,055.52
95,190.94	4,815.44	4,112.96	74,778.50	6,369.56	582,588.51	10,241.61	134,573.04
5,012.65			163.42		15,967.79		2,799.37
116.12					3,630.91		187.20
6,230.58	22.35	219.28	4,966.88	642.79	17,513.30	214.23	5,763.24
243.86	4.50	88.65	256.85	8.80	2,300.78		83.85
3,837.78	12.60	26.71	272.50	54.80	13,998.39	79.74	739.04
372.94			65.05		24,911.60	3.42	
1,623.30	106.55	177.26	1,058.83	274.94	17,475.00	68.05	2,312.30
					22,976.52		20.29
3,624.45		398.53	760.72	324.70	30,038.11		3,800.43
8,951.72	444.37	189.26	2,872.76	216.07	27,431.43	717.01	5,045.15
650.33	30.25	15.00	626.20	63.21	17,302.90		1,374.45
1,743.62			460.49		13,968.00		831.76
14,951.45	105.36	314.42	2,077.92	457.45	62,979.69	413.58	3,471.34
10,319.66	549.02	272.49	3,179.39	636.85	89,290.08	307.61	2,761.53
12,654.53	324.00	618.00	4,983.00	609.00	66,658.00	812.00	12,046.00
165,523.93	6,414.44	6,432.56	96,522.51	9,658.17	1,009,031.01	12,857.25	175,808.99
	486.31		193.17			780.00	2,246.53
4,759.23		102.01		68.83	5,124.71		
2,334	127	189	1,256	169	14,975	254	2,934
446	45	48	176	60	2,236	50	453
83	5	3	29	3	310	5	89
2,863	177	240	1,461	232	17,521	309	3,476

STATEMENT

Detailed Operating Reports of Electrical Departments of

NIAGARA
SYSTEM—Concluded

Municipality Population	Wyoming 505	*York Twp.	Zurich P.V.	NIAGARA SYSTEM SUMMARY
EARNINGS	$ c.	$ c.	$ c.	$ c.
Domestic service	2,709.73	566,632.56	3,113.96	9,604,512.57
Commercial light service	1,662.31	67,907.02	1,910.73	5,139,414.23
Commercial power service	87.71	92,880.85		7,877,715.59
Municipal power				1,701,392.17
Street lighting	765.00	49,474.56	693.00	1,386,594.83
Merchandise				14,297.09
Miscellaneous	44.65	14,806.16	110.15	467,775.40
Total earnings	5,269.40	791,701.15	5,827.84	26,191,701.88
EXPENSES				
Power purchased	3,203.43	404,461.50	4,567.43	15,868,783.17
Substation operation		28,077.36		386,968.11
Substation maintenance				288,619.26
Distribution system, operation and maintenance	210.82	19,196.83	363.22	683,672.08
Line transformer maintenance		3,530.40		65,931.93
Meter maintenance		7,043.64	14.65	234,461.39
Consumers' premises expenses		22,680.12		343,929.33
Street lighting, operation and maintenance	60.31	7,685.07	77.18	259,221.89
Promotion of business		2,670.56		213,167.77
Billing and collecting	258.69	37,036.67	230.62	676,559.08
General office, salaries and expenses	109.60	32,606.98	22.96	738,922.25
Undistributed expenses		36,996.59	28.63	290,400.65
Truck operation and maintenance				77,518.89
Interest	99.68	202,967.45	209.19	1,982,280.53
Sinking fund and principal payments on debentures	795.58	23,012.96	184.28	2,161,666.45
Depreciation	404.00	21,394.00	388.00	1,655,012.39
Other reserves				25,145.12
Total operating costs and fixed charges	5,142.11	849,360.13	6,086.16	25,952,260.29
Net surplus	127.29			239,441.59
Net loss		57,658.98	258.32	
NUMBER OF CONSUMERS				
Domestic service	128	20,343	124	368,720
Commercial light service	49	1,062	46	57,479
Power service	1	148		10,599
Total	178	21,553	170	436,798

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*In this column the figures given are for the year ended Dec. 31st, 1933, and are not included in the System summary. The 1934 figures for York Twp. are included with the Toronto column figures, and have not yet been segregated.

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

GEORGIAN BAY
SYSTEM

Alliston 1,379	Arthur 1,036	Barrie 7,686	Beaverton 989	Beeton 601	Bradford 1,060	Brechin P.V.	Cannington 864
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
8,598.06	4,532.27	53,312.22	6,186.17	3,702.58	6,521.11	957.73	5,228.96
4,699.85	3,718.74	29,040.17	2,247.30	2,562.38	3,161.58	990.36	2,237.31
1,876.35	1,455.95	16,462.72	1,138.88	1,837.31	1,882.87	826.19	618.71
795.78	535.65	1,029.02	......	......	367.50	......	......
2,070.00	1,747.92	5,973.25	1,290.04	1,185.00	1,139.00	594.00	1,077.00
......		49.32	......	......	......	......	......
151.05	......	1,250.92	778.88	18.87	85.34	28.89	80.90
18,191.09	11,990.53	107,117.62	11,641.27	9,306.14	13,157.40	3,397.17	9,242.88
11,501.96	8,683.27	71,303.93	6,989.65	6,480.58	8,480.93	2,268.04	5,963.58
......	......	1,042.98	......	......	......	......	......
......	......	......	......	......	......	......	......
811.04	556.10	2,849.79	505.88	426.96	267.53	318.56	584.39
......	......	192.73	7.55	......	......	......	......
......	......	1,212.22	25.99	......	......	......	......
......	......	......	......	......	......	......	......
182.28	98.32	1,162.04	205.42	108.03	121.24	45.14	240.59
746.07	......	3,128.09	544.10	......	815.63	......	......
98.86	369.05	1,181.48	207.08	387.34	76.50	69.36	651.44
205.29	......	1,097.93	85.00	......	242.34	......	......
......	......	746.34	......	......	......	......	......
1,669.37	1,197.33	2,574.43	331.17	513.80	1,125.50	210.98	463.66
1,478.60	763.19	2,818.99	599.36	469.36	887.55	104.19	642.55
1,388.00	945.00	7,335.00	1,145.00	605.00	862.00	143.00	682.00
......	......	......	......	......	......	......	......
18,081.47	12,612.26	96,645.95	10,646.20	8,991.07	12,879.22	3,159.27	9,228.21
109.62	......	10,471.67	995.07	315.07	278.18	237.90	14.67
......	621.73	......	......	......	......	......	......
341	185	2,035	313	125	227	44	240
112	86	410	61	37	65	27	69
14	4	43	10	4	8	3	10
467	275	2,488	384	166	300	74	319

STATEMENT

Detailed Operating Reports of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality	Chatsworth	Chesley	Coldwater	Collingwood	Cookstown P.V.
Population	308	1,762	632	5,536	
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	1,692.75	8,984.38	2,852.44	26,049.30	2,384.91
Commercial light service	1,367.56	4,079.24	1,761.53	9,664.85	1,099.95
Commercial power service		8,385.20	5,363.65	15,001.34	780.27
Municipal power		1,034.85		1,898.28	
Street lighting	492.00	1,605.34	571.00	2,832.00	840.00
Merchandise	47.58	13.09			
Miscellaneous		649.52	191.75	1,550.00	10.07
Total earnings	3,599.89	24,751.62	10,740.37	56,995.77	5,115.20
EXPENSES					
Power purchased	1,943.29	16,219.09	7,477.56	46,302.23	2,723.89
Substation operation				39.75	
Substation maintenance					
Distribution system, operation and maintenance	144.11	594.56	359.95	1,867.69	132.64
Line transformer maintenance		23.00			
Meter maintenance		203.00		79.40	
Consumers' premises expenses					
Street lighting, operation and maintenance	52.38	206.10	36.85	343.88	89.84
Promotion of business				20.77	
Billing and collecting		429.71		3,096.68	192.69
General office, salaries and expenses	263.11	610.82	343.54	2,699.42	50.31
Undistributed expenses		107.20		517.07	19.00
Truck operation and maintenance		57.00		240.87	
Interest	280.09	302.72	205.79		353.35
Sinking fund and principal payments on debentures	221.06	2,044.33	281.97		301.24
Depreciation	279.00	1,256.00	555.00	3,940.00	525.00
Other reserves					
Total operating costs and fixed charges	3,183.04	22,053.53	9,260.66	59,147.76	4,387.96
Net surplus	416.85	2,698.09	1,479.71		727.24
Net loss				2,151.99	
NUMBER OF CONSUMERS					
Domestic service	79	422	135	1,303	99
Commercial light service	33	98	53	200	28
Power service		19	3	52	4
Total	112	539	191	1,555	131

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Creemore 620	Dundalk 650	Durham 1,776	Elmvale P.V.	Elmwood P.V.	Flesherton 488	Grand Valley 589	Graven-hurst 1,956
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
3,733.87	2,783.62	6,631.32	2,805.65	1,174.92	2,630.38	3,495.14	9,438.44
2,150.81	2,257.59	4,294.98	1,684.05	652.37	1,886.48	1,828.42	5,842.96
854.17	2,189.91	5,757.02	2,771.03	1,234.95	192.89	1,753.93	8,009.48
		717.67	140.05				701.58
708.00	1,230.00	1,935.00	650.00	529.00	621.00	936.00	2,179.00
							177.06
	173.97	429.01	35.29	37.52	33.13	116.52	83.75
7,446.85	8,635.09	19,765.00	8,086.07	3,628.76	5,363.88	8,130.01	26,432.27
5,056.67	5,832.59	14,375.17	5,624.42	2,206.15	3,411.87	5,122.10	15,001.49
							14.20
222.17	579.18	489.46	538.27	45.48	95.28	205.16	778.41
		25.00					48.76
		73.60					198.00
63.72	102.49	303.08	103.04	9.60	54.92	115.74	264.31
		972.82					2,165.33
211.20	622.37	469.81	282.77	198.17	405.46	562.78	302.65
		171.74	4.00				253.56
		272.19					405.38
72.12	34.28	257.99	161.83	181.59	425.85	158.86	648.59
534.79	398.16	1,374.73	293.53	451.64	233.48	805.22	434.51
403.00	451.00	1,168.00	631.00	248.00	348.00	545.00	1,780.00
							275.00
6,563.67	8,020.07	19,953.59	7,638.86	3,340.63	4,974.86	7,514.86	22,570.19
883.18	615.02		447.21	288.13	389.02	615.15	3,862.08
		188.59					
145	166	422	156	59	139	156	460
52	67	112	57	19	51	48	107
2	4	10	8	1	2	4	13
199	237	544	221	79	192	208	580

STATEMENT

Detailed Operating Reports of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality	Hanover	Holstein	Huntsville	Kincardine	Kirkfield
Population	3,039	P.V.	2,563	2,511	P.V.
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	19,142.23	1,304.56	11,427.81	14,453.96	759.85
Commercial light service	6,936.51	612.16	7,860.94	7,117.59	1,160.68
Commercial power service	18,638.24	27.30	12,224.17	10,717.54	
Municipal power	293.08		1,400.00	1,570.10	
Street lighting	2,992.00	350.00	2,714.35	4,133.75	460.00
Merchandise					
Miscellaneous	1,668.20		894.18	48.63	
Total earnings	49,670.26	2,294.02	36,521.45	38,041.57	2,380.53
EXPENSES					
Power purchased	30,090.20	1,873.31	25,318.32	26,838.54	1,410.37
Substation operation					
Substation maintenance				314.69	
Distribution system, operation and maintenance	1,679.50	40.71	1,729.94	1,169.54	310.21
Line transformer maintenance	35.05				
Meter maintenance	187.91		252.58		
Consumers' premises expenses					
Street lighting, operation and maintenance	321.36	10.72	618.25	299.12	10.03
Promotion of business			69.68	165.06	
Billing and collecting	1,010.86		1,121.26	671.80	
General office, salaries and expenses	719.60	158.83	714.96	523.33	30.57
Undistributed expenses	420.00		525.37	392.44	
Truck operation and maintenance	161.86		96.65	247.58	
Interest	2,157.47	165.75	310.60	1,987.45	220.13
Sinking fund and principal payments on debentures	5,489.83	225.54	727.55	3,352.96	368.75
Depreciation	3,348.00	112.00	1,120.00	2,171.00	215.00
Other reserves					
Total operating costs and fixed charges	45,621.64	2,586.86	32,605.16	38,133.51	2,565.06
Net surplus	4,048.62		3,916.29		
Net loss		292.84		91.94	184.53
NUMBER OF CONSUMERS					
Domestic service	716	53	589	617	31
Commercial light service	121	20	124	121	20
Power service	20		12	20	
Total	857	73	725	758	51

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Lucknow	Markdale	Meaford	Midland	Mildmay	Mount Forest	Neustadt	Orangeville
964	792	2,687	6,925	714	1,839	458	2,785
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
6,700.39	3,724.51	11,855.47	34,852.11	2,980.43	7,630.71	2,220.52	15,287.50
3,071.61	2,611.63	6,719.73	13,540.44	2,010.99	5,318.39	1,411.70	9,448.93
3,073.45	788.98	4,561.18	49,964.39	775.68	3,331.27	42.21	6,118.70
499.53	160.81	1,013.70	3,272.92		998.91		1,174.97
1,512.00	900.00	3,196.00	6,147.50	847.00	2,220.75	975.00	3,387.00
		4.43					19.22
265.37	78.01	860.99	2,141.76	39.95	232.09		187.37
15,122.35	8,263.94	28,211.50	109,919.12	6,654.05	19,732.12	4,649.43	35,623.69
10,595.27	5,403.80	15,614.15	79,290.97	3,537.31	15,248.51	3,333.21	23,271.67
			1,884.27				
			115.16				
218.70	82.49	2,079.68	2,935.70	169.00	507.89	171.37	1,115.37
		10.54	16.78				
		65.72	1,281.04	6.70	103.05		153.85
							11.05
106.36	62.10	128.72	742.80	74.60	333.13	60.70	357.65
			971.61				
		676.12	2,110.46		707.95		1,422.69
1,081.87	443.32	490.05	1,934.44	391.57	112.07	220.53	59.65
		443.31	1,394.42		67.70		105.28
		221.87	294.32		76.97		
670.95	337.29	1,917.09	3,236.02	594.77	645.99	917.75	497.38
1,018.15	324.94		4,132.95		670.42	1,039.49	2,410.04
762.00	599.00	1,400.00	9,885.00	215.00	1,366.00	581.00	2,019.00
14,453.30	7,252.94	23,047.25	110,225.94	4,988.95	19,839.68	6,324.05	31,423.63
669.05	1,011.00	5,164.25		1,665.10			4,200.06
			306.82		107.56	1,674.62	
271	196	637	1,589	147	458	92	669
88	72	142	216	47	143	31	155
6	9	16	58	2	13	1	25
365	277	795	1,863	196	614	124	849

STATEMENT

Detailed Operating Reports of Electrical Departments of

GEORGIAN BAY SYSTEM—Continued

Municipality	Owen Sound	Paisley	Penetanguishene	Port Elgin	Port McNicoll
Population	12,894	713	4,352	1,351	880
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	64,828.86	3,971.68	12,235.60	7,696.56	3,312.27
Commercial light service	37,669.05	2,728.17	4,501.99	3,962.43	835.07
Commercial power service	39,406.15	1,208.53	11,308.93	3,275.30	
Municipal power			2,185.58	853.78	
Street lighting	12,832.96	1,408.00	2,149.00	2,162.16	927.50
Merchandise	824.75				
Miscellaneous	764.32	138.00	96.23	610.22	
Total earnings	156,326.09	9,454.38	32,477.33	18,560.45	5,074.84
EXPENSES					
Power purchased	99,048.60	6,107.68	21,458.75	8,057.61	2,771.46
Substation operation	3,575.02		434.44		
Substation maintenance			80.64		
Distribution system, operation and maintenance	4,474.15	183.66	1,634.89	874.03	495.12
Line transformer maintenance	774.51		8.24	12.87	
Meter maintenance	1,916.38		74.75	55.95	
Consumers' premises expenses	4.88		16.08		
Street lighting, operation and maintenance	2,072.42	109.50	216.49	181.11	137.65
Promotion of business	136.07		33.00		
Billing and collecting	4,867.73		879.46	703.58	
General office, salaries and expenses	5,248.31	528.91	508.93	126.92	147.19
Undistributed expenses	2,908.57		235.50	122.12	
Truck operation and maintenance	821.94		289.47	273.73	
Interest		555.05	1,142.08	1,921.90	157.15
Sinking fund and principal payments on debentures		783.82	1,734.44	1,470.02	514.10
Depreciation	7,222.00	526.00	2,920.00	871.00	405.00
Other reserves					
Total operating costs and fixed charges	133,070.58	8,794.62	31,667.16	14,670.84	4,627.67
Net surplus	23,255.51	659.76	810.17	3,889.61	447.17
Net loss					
NUMBER OF CONSUMERS					
Domestic service	3,185	175	609	365	195
Commercial light service	574	53	102	84	32
Power service	118	4	27	9	
Total	3,877	232	738	458	227

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Port Perry 1,104	Priceville P.V.	Ripley 465	Rosseau 286	Shelburne 1,121	South-ampton 1,356	Stayner 995	Sunder-Land P.V.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
6,817.87	560.73	3,313.20	3,267.90	5,485.48	7,945.62	4,425.38	2,331.70
2,864.18	373.66	1,818.19	969.41	3,530.53	3,376.56	2,750.32	1,760.97
2,133.88				2,080.78	3,074.40	2,337.22	60.67
350.96				658.37	1,288.00		
1,471.25	560.00	1,070.00	1,239.00	1,056.00	2,294.00	1,410.00	720.00
900.65	11.98	20.74	11.57	165.49	173.13	212.65	52.81
14,538.79	1,506.37	6,222.13	5,487.88	12,976.65	18,151.71	11,135.57	4,926.15
9,098.91	1,084.48	3,901.53	3,622.17	9,007.40	7,877.77	7,630.55	3,017.96
968.11	24.20	66.53	149.02	548.82	1,215.27	540.22	245.21
					31.27	48.22	
				6.00			
137.23	24.81	85.77	46.75	76.52	263.85	180.75	105.40
			191.10	558.02	831.59	502.86	
761.91	50.64	504.66	33.72	84.97	411.11	92.39	368.24
			29.00		161.91	137.00	
					321.37		
899.68	457.54	623.37	758.54	276.77	1,238.65	79.88	195.87
792.35	347.90	404.69	353.40	1,389.37	1,155.31	366.00	233.63
855.00	182.00	441.00	236.00	993.00	766.00	850.00	290.00
13,513.19	2,171.57	6,027.55	5,419.70	12,940.87	14,274.10	10,427.87	4,456.31
1,025.60		194.58	68.18	35.78	3,877.61	707.70	469.84
	665.20						
310	27	120	62	287	396	251	112
79	11	50	20	85	81	82	39
9				14	12	11	1
398	38	170	82	386	489	344	152

STATEMENT

Detailed Operating Reports of Electrical Departments of

GEORGIAN BAY
SYSTEM—Continued

Municipality	Tara	Teeswater	Thornton	Tottenham	Uxbridge
Population	505	796	P.V.	556	1,512
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	2,701.95	4,475.34	1,432.28	3,270.65	8,265.16
Commercial light service	1,373.63	2,514.88	567.49	1,954.92	3,295.58
Commercial power service	751.17	1,006.74	299.37	229.75	968.73
Municipal power		180.00		193.91	
Street lighting	1,126.00	1,402.00	880.00	1,225.08	1,743.02
Merchandise					
Miscellaneous	21.47	160.07	8.15	14.95	422.24
Total earnings	5,974.22	9,739.03	3,187.29	6,889.26	14,694.73
EXPENSES					
Power purchased	3,311.63	5,399.38	1,635.54	5,487.57	10,246.55
Substation operation					
Substation maintenance					
Distribution system, operation and maintenance	86.37	70.85	35.75	306.95	706.28
Line transformer maintenance					
Meter maintenance					
Consumers' premises expenses					
Street lighting, operation and maintenance	94.13	66.98	33.65	108.96	255.23
Promotion of business					
Billing and collecting					
General office, salaries and expenses	572.15	510.59	84.44	215.71	801.21
Undistributed expenses					
Truck operation and maintenance					
Interest	302.40	838.54	270.07	405.68	723.91
Sinking fund and principal payments on debentures	994.65	1,206.43	450.53	404.02	1,032.09
Depreciation	546.00	712.00	317.00	425.00	695.00
Other reserves					
Total operating costs and fixed charges	5,907.33	8,804.77	2,826.98	7,353.89	14,460.27
Net surplus	66.89	934.26	360.31		234.46
Net loss				464.63	
NUMBER OF CONSUMERS					
Domestic service	140	196	56	121	360
Commercial light service	37	60	17	52	93
Power service	4	6	2	5	10
Total	181	262	75	178	463

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Victoria Harbor 1,126	Walkerton 2,370	Waubaushene P.V.	Wiarton 1,815	Windermere 130	Wingham 1,923	Woodville 420	GEORGIAN BAY SYSTEM SUMMARY
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,920.70	15,025.75	2,315.90	8,263.00	2,540.07	12,831.04	2,266.10	488,537.06
839.58	8,269.30	715.54	5,775.95	1,172.79	6,946.66	1,131.46	256,748.09
47.27	4,344.67	414.15	2,291.15	.....	9,341.01	704.41	273,940.21
124.66	635.48	98.66	1,494.19	.....	638.50		26,306.49
702.00	2,402.04	405.00	2,300.00	455.00	3,423.00	532.00	105,934.91
.....	187.30	.....	.....	.....	215.64	.....	1,538.39
5.59	70.24	64.47	225.80	35.65	395.10	212.61	16,916.06
4,639.80	30,934.78	4,013.72	20,350.09	4,203.51	33,790.95	4,846.58	1,169,921.21
2,892.10	15,333.55	1,937.22	13,459.79	2,122.33	16,547.73	2,870.91	758,723.26
.....	.....	.....	.....	.....	1,456.54	.....	8,447.20
.....	.....	.....	.....	.....	.....	.....	510.49
198.83	1,432.42	158.82	515.20	248.51	2,138.35	389.30	42,289.57
.....	215.38	.....	.....	.....	.....	.....	1,370.41
.....	390.38	.....	86.54	.....	41.60	.....	6,488.15
.....	.....	.....	.....	.....	.....	.....	38.01
107.38	490.42	62.64	209.58	19.25	511.73	37.05	12,669.80
.....	.....	.....	.....	.....	.....	.....	1,396.19
.....	1,366.07	.....	990.55	176.53	499.12	.....	31,377.87
370.74	1,169.70	388.21	127.84	45.26	796.08	361.83	31,256.97
.....	102.66	.....	195.76	11.25	477.60	.....	10,433.02
.....	380.87	.....	226.56	.....	19.37	.....	5,154.34
60.55	2,954.71	159.07	1,846.25	678.11	2,228.77	162.42	43,764.90
488.69	2,100.57	111.85	1,187.62	399.01	1,680.55	244.91	54,745.02
400.00	1,386.00	295.00	778.00	298.00	2,935.00	232.00	74,603.00
.....	.....	.....	.....	.....	.....	.....	275.00
4,518.29	27,322.73	3,112.81	19,623.69	3,998.25	29,332.44	4,298.42	1,083,543.20
121.51	3,612.05	900.91	726.40	205.26	4,458.51	548.16	86,378.01
.....	.....	.....	.....	.....	.....	.....	.....
172	548	137	352	51	504	112	22,159
27	134	24	117	10	146	31	5,132
2	17	3	14	.....	23	2	693
201	699	164	483	61	673	145	27,984

STATEMENT

Detailed Operating Reports of Electrical Departments of

EASTERN ONTARIO SYSTEM

Municipality	Alexandria	Apple Hill	Athens	Bath	Belleville
Population	1,928	P.V.	652	355	14,012
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	6,835.85	1,105.12	3,575.13	1,382.54	79,141.54
Commercial light service	4,014.55	810.93	1,570.16	782.45	51,734.65
Commercial power service	3,975.24	279.57	1,105.89		35,698.11
Municipal power	1,491.75				7,468.24
Street lighting	2,640.00	559.60	1,101.00	714.00	11,666.50
Merchandise					
Miscellaneous	409.40		106.41		1,965.49
Total earnings	19,366.79	2,755.22	7,458.59	2,878.99	187,674.53
EXPENSES					
Power purchased	12,386.04	1,511.72	3,766.31	2,158.48	123,562.15
Substation operation					
Substation maintenance					
Distribution system, operation and maintenance	815.47	70.26	149.97	5.07	4,392.61
Line transformer maintenance	81.87				246.71
Meter maintenance	189.53				1,849.57
Consumers' premises expenses					166.80
Street lighting, operation and maintenance	203.51	64.98	76.16	19.92	1,496.69
Promotion of business					1,217.02
Billing and collecting	791.28				4,438.19
General office, salaries and expenses	373.57	252.28	171.73	126.24	5,903.15
Undistributed expenses	76.59		15.00		1,466.54
Truck operation and maintenance					188.47
Interest	1,389.23	201.72	683.40	466.93	1,235.61
Sinking fund and principal payments on debentures	2,648.32	322.18	524.77	226.92	6,000.00
Depreciation	1,327.00	165.00	457.00	174.00	5,534.00
Other reserves	250.00		37.89		
Total operating costs and fixed charges	20,532.41	2,588.14	5,882.23	3,177.56	157,697.51
Net surplus		167.08	1,576.36		29,977.02
Net loss	1,165.62			298.57	
NUMBER OF CONSUMERS					
Domestic service	300	43	145	32	3,077
Commercial light service	95	21	45	16	595
Power service	14	1	1		90
Total	409	65	191	48	3,762

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Bloomfield 619	Bowman-ville 3,626	Brighton 1,442	Brockville 9,654	Cardinal 1,395	Carleton Place 4,272	Chesterville 970
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
2,930.69	29,541.77	10,010.58	46,677.66	6,959.24	19,033.09	5,427.10
979.18	10,014.12	4,917.65	25,305.75	1,875.06	8,983.67	2,389.97
1,241.68	46,527.51	2,471.70	30,103.55	536.64	26,289.90	1,361.85
......	......	......	6,035.90	......	1,781.48	......
720.00	4,187.74	2,191.92	8,822.00	907.00	4,786.00	1,032.00
......	......	173.73	......	......	......	31.57
24.52	810.83	121.84	5,914.46	......	1,966.36	450.90
5,896.07	91,081.97	19,887.42	122,859.32	10,277.94	62,840.50	10,693.39
3,846.75	62,306.90	8,901.03	71,432.96	4,800.98	36,507.94	7,399.20
......	......	......	5,190.00	......	......	......
......	......	......	757.15	......	171.44	......
79.37	2,729.06	1,418.81	2,428.33	683.20	1,797.33	1,005.40
......	89.70	20.75	246.79	......	20.41	......
133.11	724.87	471.30	2,095.98	5.40	241.97	25.15
......	11.91	116.13	......	.90	113.24	......
51.05	346.17	210.04	1,773.29	181.73	312.85	133.38
......	......	......	212.95	......	35.11	......
......	1,815.32	778.60	2,285.77		1,589.16	366.70
164.15	2,177.08	1,447.57	4,656.03	485.04	3,310.87	391.68
......	1,098.56	647.20	1,585.27	66.54	204.83	37.94
......	......	238.01	846.73	......	555.92	......
495.58	3,031.67	1,126.84	......	682.48	2,618.49	143.35
428.05	2,418.99	892.22	......	525.13	2,554.26	201.40
507.00	1,561.00	585.00	8,612.00	370.00	2,063.00	619.00
......	......	......	4,000.00		500.00	......
5,705.06	78,311.23	16,853.50	106,123.25	7,801.40	52,596.82	10,323.20
191.01	12,770.74	3,033.92	16,736.07	2,476.54	10,243.68	370.19
......	......	......	......		......	......
153	1,052	479	2,570	308	957	232
28	173	98	436	53	184	68
6	34	11	67	2	19	3
187	1,259	588	3,073	363	1,160	303

STATEMENT

Detailed Operating Reports of Electrical Departments of

EASTERN ONTARIO SYSTEM—Continued

Municipality	Cobourg	Colborne	Deseronto	Finch	Hastings
Population	5,556	1,040	1,399	393	753
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	31,488.12	5,197.09	6,183.07	1,821.05	4,031.38
Commercial light service	18,599.60	3,563.94	2,265.64	1,354.08	1,582.54
Commercial power service	23,994.73	700.55	1,075.91	769.79	677.57
Municipal power	2,583.78	......	695.41	......	......
Street lighting	5,601.54	1,317.25	1,791.96	570.00	1,290.34
Merchandise	......	......	82.40	......	......
Miscellaneous	1,044.26	275.83	163.93	136.53	380.95
Total earnings	83,312.03	11,054.66	12,258.32	4,651.45	7,962.78
EXPENSES					
Power purchased	49,665.05	4,533.22	6,200.71	2,808.56	3,596.18
Substation operation	......	......	......	......	......
Substation maintenance	......	......	......	......	......
Distribution system, operation and maintenance	2,051.79	871.64	808.63	227.81	411.74
Line transformer maintenance	505.64	......	......	......	15.00
Meter maintenance	913.50	44.73	29.60	......	6.65
Consumers' premises expenses	217.61	......	......	......	......
Street lighting, operation and maintenance	711.19	204.09	321.88	8.25	124.23
Promotion of business	23.27	14.56	......	......	......
Billing and collecting	2,904.55	......	301.22	......	234.04
General office, salaries and expenses	3,678.22	1,119.23	691.31	224.69	56.40
Undistributed expenses	1,268.35	68.35	44.44	25.58	41.53
Truck operation and maintenance	156.17	335.29	......	......	......
Interest	4,566.60	732.13	508.37	379.52	1,085.17
Sinking fund and principal payments on debentures	3,447.48	432.23	511.06	269.91	670.33
Depreciation	2,415.00	220.00	369.00	265.00	440.00
Other reserves	......	......	......	60.00	......
Total operating costs and fixed charges	72,524.42	8,575.47	9,786.22	4,269.32	6,681.27
Net surplus	10,787.61	2,479.19	2,472.10	382.13	1,281.51
Net loss	......	......	......	......	......
NUMBER OF CONSUMERS					
Domestic service	1,202	235	278	80	189
Commercial light service	278	82	63	32	53
Power service	44	3	14	1	5
Total	1,524	320	355	113	247

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Havelock 1,249	Kemptville 1,227	Kingston 23,260	Lakefield 1,387	Lanark 623	Lancaster 575	Lindsay 6,963
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
5,960.19	7,108.96	115,553.94	6,324.64	2,879.49	2,019.15	38,819.77
2,194.92	4,520.83	76,595.44	3,490.74	1,251.36	1,565.75	22,789.74
2,603.14	4,121.02	95,585.80	1,444.28	.....	.....	25,925.84
.....	.....	10,083.61	.....	.....	.....	3,658.51
1,508.00	1,830.00	22,065.86	1,845.87	592.00	1,496.50	7,977.46
379.17	1,008.53	3,865.50	508.97	100.21	.....	2,859.87
12,645.42	18,589.34	323,750.15	13,614.50	4,823.06	5,081.40	102,031.19
6,245.81	10,392.43	151,250.40	8,710.71	3,009.13	3,242.42	69,672.57
.....	.....	5,044.40	.....	.....	.....	.....
.....	.....	3,964.60	.....	.....	.....	.....
803.30	1,162.70	13,020.04	828.28	67.11	116.50	2,516.97
9.60	31.93	693.43	16.05	.....	.....	460.06
3.87	82.27	4,724.21	48.21	25.90	.....	1,204.88
.....	4.00	1,979.95	.....	.....	.....	477.63
214.43	340.20	3,781.66	178.49	25.80	30.74	1,393.43
.....	180.00	159.03	.....	.....	.....	.....
.....	981.51	7,133.66	523.76	.....	.....	2,714.21
458.77	403.39	13,643.21	484.31	311.78	322.64	6,135.20
.....	105.92	8,582.23	87.83	25.25	.....	1,313.66
251.99	335.49	2,114.65	.....	.....	.....	178.11
982.49	1,098.33	4,849.35	1,728.46	206.04	381.72	5,246.82
1,882.12	674.47	10,213.46	831.13	492.31	753.77	5,017.74
876.00	948.00	20,524.00	1,167.00	267.00	285.00	3,611.00
.....	.....	37,500.00	.....	.....	.....	.....
11,728.38	16,740.64	289,178.28	14,604.23	4,430.32	5,132.79	99,942.28
917.04	1,848.70	34,571.87	.....	392.74	.....	2,088.91
.....	.....	.....	989.73	.....	51.39	.....
281	321	5,645	312	154	84	1,812
60	78	864	68	39	34	329
3	7	144	5	.....	.....	77
344	406	6,653	385	193	118	2,218

STATEMENT

Detailed Operating Reports of Electrical Departments of

EASTERN ONTARIO SYSTEM—Continued

Municipality	Madoc	Marmora	Martintown	Maxville
Population	1,067	1,015	P.V.	725
EARNINGS	$ c.	$ c.	$ c.	$ c.
Domestic service	4,884.31	3,912.68	829.16	3,225.77
Commercial light service	3,536.32	1,789.38	917.32	2,523.20
Commercial power service	1,828.65	165.76		
Municipal power				
Street lighting	1,500.00	1,450.00	300.00	1,430.04
Merchandise				
Miscellaneous	38.82	84.66	74.42	29.55
Total earnings	11,788.10	7,402.48	2,120.90	7,208.56
EXPENSES				
Power purchased	6,247.20	4,184.28	973.55	4,220.32
Substation operation				
Substation maintenance				
Distribution system, operation and maintenance	813.84	271.49	59.10	220.68
Line transformer maintenance				
Meter maintenance	2.55			
Consumers' premises expenses				
Street lighting, operation and maintenance	13.20	51.58	45.28	111.45
Promotion of business				
Billing and collecting				
General office, salaries and expenses	826.82	562.93	132.74	282.80
Undistributed expenses		25.64		
Truck operation and maintenance				
Interest	44.90	498.39	175.20	418.48
Sinking fund and principal payments on debentures	469.85	767.62	347.90	920.39
Depreciation	417.00	555.00	139.00	498.00
Other reserves			70.00	
Total operating costs and fixed charges	8,835.36	6,916.93	1,942.77	6,672.12
Net surplus	2,952.74	485.55	178.13	536.44
Net loss				
NUMBER OF CONSUMERS				
Domestic service	280	208	36	135
Commercial light service	92	49	20	48
Power service	6	2		
Total	378	259	56	183

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Napanee	Norwood	Omemee	Oshawa	Ottawa	Perth	Peterborough
2,827	868	551	22,444	132,551	4,052	22,850
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
26,408.56	4,864.87	2,204.87	160,650.53	445,443.36	23,494.77	126,242.49
13,876.11	2,482.65	1,330.43	61,297.29	165,972.08	15,960.51	63,611.56
11,686.78	652.17	1,543.36	172,372.95	56,789.02	16,491.95	78,518.64
1,235.63			8,166.81	25,122.90	2,131.18	6,843.59
4,744.93	1,569.00	956.40	10,611.72	73,796.29	2,066.00	21,637.68
					1,491.10	
1,286.44	492.25		4,696.36	3,000.00	2,988.55	1,155.99
59,238.45	10,060.94	6,035.06	417,795.66	770,123.65	64,624.06	298,009.95
33,208.26	3,716.38	3,091.62	344,999.04	368,528.56	35,107.37	188,310.48
				27,617.82	360.00	5,999.59
				741.53		243.39
2,622.09	593.53	536.01	4,843.62	26,369.33	1,399.13	5,554.24
152.86		6.38	436.95	1,916.16	167.42	1,037.71
963.56	81.45	73.39	4,012.07	10,044.16	568.95	4,555.09
44.90	2.00		462.61	3,929.73	23.56	577.25
504.15		124.93	1,812.51	30,211.17	573.88	3,739.53
			241.97	10,066.56		
1,482.86			7,603.70	42,563.27	1,637.15	6,979.28
3,942.61	425.78	294.38	6,636.24	26,984.87	3,349.47	6,133.98
1,837.23			4,358.21	19,143.38	713.46	5,442.25
	233.26			2,297.48	416.80	2,646.65
1,550.86	1,679.57	177.91	12,553.17	41,408.64	3,329.58	27,609.50
2,498.26	1,087.78	805.91	11,589.00	21,587.45	1,928.30	14,263.54
1,513.00	1,054.00	586.00	9,578.00	73,605.00	3,381.00	16,260.00
						1,200.00
50,320.64	8,873.75	5,696.53	409,127.09	707,015.11	52,956.07	290,552.48
8,917.81	1,187.19	338.53	8,668.57	63,108.54	11,667.99	7,457.47
765	213	128	5,956	12,699	943	5,353
195	64	46	510	1,348	193	803
32	2	6	101	200	25	155
992	279	180	6,567	14,247	1,161	6,311

STATEMENT

Detailed Operating Reports of Electrical Departments of

EASTERN ONTARIO
SYSTEM—Continued

Municipality	Picton	Port Hope	Prescott	Richmond	Russell
Population	3,313	4,520	3,083	413	P.V.
EARNINGS	$ c.	$ c.	$ c.	$ c.	$ c.
Domestic service	22,534.56	29,702.71	16,061.63	1,843.49	2,622.95
Commercial light service	13,250.39	12,066.16	8,269.96	1,518.24	1,134.81
Commercial power service	6,683.30	24,208.53	3,343.57		
Municipal power	2,020.52	2,010.81	1,668.12		
Street lighting	4,364.04	4,620.00	3,475.00	520.04	740.00
Merchandise	489.58				
Miscellaneous	1,676.80	252.13	229.96	3.52	37.93
Total earnings	51,019.19	72,860.34	33,048.24	3,885.29	4,535.69
EXPENSES					
Power purchased	37,843.57	42,909.52	22,632.95	2,434.69	2,752.97
Substation operation			1,439.99		
Substation maintenance					
Distribution system, operation and maintenance	1,688.07	1,801.38	2,320.82	32.58	85.35
Line transformer maintenance	68.96	189.89	2.00		
Meter maintenance	34.14	1,171.68	277.29	75.75	
Consumers' premises expenses	3.50		.25		
Street lighting, operation and maintenance	380.22	680.11	723.93	19.16	74.37
Promotion of business					
Billing and collecting	1,027.22	1,694.43	1,193.86		
General office, salaries and expenses	2,792.09	3,886.31	2,075.31	238.56	364.20
Undistributed expenses	171.75	986.92	348.95		
Truck operation and maintenance	289.72	252.18			
Interest		1,316.20	43.77	332.09	396.66
Sinking fund and principal payments on debentures		2,953.32		236.43	440.13
Depreciation	2,014.00	1,938.00	2,714.00	199.00	282.00
Other reserves				52.84	
Total operating costs and fixed charges	46,313.24	59,779.94	33,773.12	3,621.10	4,395.68
Net surplus	4,705.95	13,080.40		264.19	140.01
Net loss			724.88		
NUMBER OF CONSUMERS					
Domestic service	991	1,207	660	55	105
Commercial light service	206	199	156	25	34
Power service	36	44	18		
Total	1,233	1,450	834	80	139

"B"—Continued

Hydro Municipalities for Year Ended December 31, 1934

Smiths Falls 7,502	Stirling 949	Trenton 6,288	Tweed 1,287	Warkworth P.V.	Wellington 920	Westport 738
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
42,734.01	5,454.87	29,554.98	6,177.30	2,250.85	4,742.66	3,120.69
15,271.34	3,476.71	18,632.97	4,551.82	1,543.53	1,930.48	2,625.60
21,142.66	1,584.22	67,263.61	2,645.28		1,922.92	
1,705.58	266.17	1,770.78	221.62			
7,665.00	1,453.25	8,076.00	1,875.00	672.00	1,160.04	1,383.50
82.07	253.98		281.07			
3,461.69	416.94	2,225.46	219.04	142.29	250.00	156.07
92,062.35	12,906.14	127,523.80	15,971.13	4,608.67	10,006.10	7,285.86
45,402.52	6,913.41	76,517.52	8,795.09	2,707.92	6,645.73	4,429.91
2,083.60	245.71					
338.41		73.53				
2,927.37	1,072.75	1,769.29	779.54	56.58	666.65	153.53
	28.18	206.08		9.13		9.15
646.56	79.25	1,936.39	316.23		69.51	16.01
123.83		170.52				
670.49	260.31	1,548.01	399.21	19.25	155.62	133.91
		20.82				
3,339.48	456.45	2,559.67	794.17			
4,042.64	1,078.02	4,891.08	707.51	206.77	591.50	538.65
650.83	26.78	1,631.46	114.52		35.57	23.25
587.92	556.87	182.38				
4,166.56		7,422.17	610.69	565.03	808.49	759.31
13,070.58		5,621.59	678.09	235.07	681.61	478.81
5,954.00	957.00	3,816.00	460.00	208.00	724.00	210.00
250.00						
84,254.79	11,674.73	108,366.51	13,655.05	4,007.75	10,378.68	6,752.53
7,807.56	1,231.41	19,157.29	2,316.08	600.92		533.33
					372.58	
1,693	277	1,259	249	117	286	90
263	86	249	92	38	63	45
48	9	50	12		6	
2,004	372	1,558	353	155	355	135

STATEMENT

Detailed Operating Reports of Electrical Departments of

EASTERN ONTARIO SYSTEM—Concluded

Municipality Population	Whitby 5,297	Williamsburg P.V.	Winchester 930	EASTERN ONTARIO SYSTEM SUMMARY
EARNINGS	$ c.	$ c.	$ c.	$ c.
Domestic service	19,879.51	3,546.52	6,291.18	1,438,686.44
Commercial light service	10,157.37	6,544.69	3,372.12	690,795.76
Commercial power service	14,085.38	181.87	1,604.58	791,205.47
Municipal power	2,219.63			89,182.02
Street lighting	3,695.61	240.00	1,062.00	248,278.08
Merchandise			26.75	2,912.25
Miscellaneous	1,595.17	223.04	368.35	47,599.39
Total earnings	51,632.67	10,736.12	12,724.98	3,308,659.41
EXPENSES				
Power purchased	34,315.82	5,285.45	8,201.43	1,958,283.21
Substation operation	193.32			48,174.43
Substation maintenance				6,290.05
Distribution system, operation and maintenance	2,349.31	319.29	541.45	98,308.41
Line transformer maintenance	51.82			6,720.63
Meter maintenance	611.63		83.25	38,439.61
Consumers' premises expenses		0.75		8,427.07
Street lighting, operation and maintenance	567.75	63.46	105.68	55,193.32
Promotion of business	24.11			12,195.40
Billing and collecting	1,440.36		430.66	100,060.53
General office, salaries and expenses	1,248.10	424.63	489.44	120,135.97
Undistributed expenses	159.47			52,431.28
Truck operation and maintenance	249.30			12,913.39
Interest	1,990.68	40.60	366.15	142,104.90
Sinking fund and principal payments on debentures	2,329.43	210.01	407.55	125,546.87
Depreciation	2,958.05	198.00	626.00	184,205.05
Other reserves		432.02		44,352.75
Total operating costs and fixed charges	48,489.15	6,974.21	11,251.61	3,013,782.87
Net surplus	3,143.52	3,761.91	1,473.37	294,876.54
Net loss				
NUMBER OF CONSUMERS				
Domestic service	825	98	278	54,847
Commercial light service	153	62	68	8,899
Power service	21	1	2	1,327
Total	999	161	348	65,073

"B"—Concluded

Hydro Municipalities for Year Ended December 31, 1934

THUNDER BAY SYSTEM

Fort William 24,709	Nipigon	Port Arthur 20,064	THUNDER BAY SYSTEM SUMMARY	ALL SYSTEMS GRAND SUMMARY
$ c.	$ c.	$ c.	$ c.	$ c.
200,719.69	2,593.14	108,984.20	312,297.03	11,844,033.10
63,797.04	1,793.53	53,537.70	119,128.27	6,206,086.35
42,168.69	291.64	707,462.77	749,923.10	9,692,784.37
23,753.96	648.47	34,686.69	59,089.12	1,875,969.80
17,293.91	510.00	18,984.96	36,788.87	1,777,596.69
......	......	......	......	18,747.73
7,450.85	......	15,430.34	22,881.19	555,172.04
355,184.14	5,836.78	939,086.66	1,300,107.58	31,970,390.08
244,677.70	2,515.26	758,905.19	1,006,098.15	19,591,887.79
5,845.16	......	19,509.19	25,354.35	468,944.09
204.09	......	926.63	1,130.72	296,550.52
7,920.82	275.74	12,347.33	20,543.89	844,813.95
267.73	28.00	853.48	1,149.21	75,172.18
6,990.64	29.16	4,993.84	12,013.64	291,402.79
104.68	......	......	104.68	352,499.09
5,436.07	66.75	6,196.97	11,699.79	338,784.80
......	......	1,982.00	1,982.00	228,741.36
10,290.94	......	9,571.78	19,862.72	827,860.20
5,197.57	984.62	11,542.37	17,724.56	908,039.75
3,702.00	55.00	5,300.17	9,057.17	362,322.12
1,536.47	......	958.52	2,494.99	98,081.61
20,820.62	388.25	15,635.05	36,843.92	2,204,994.25
8,301.37	459.28	7,450.13	16,210.78	2,358,169.12
12,143.00	501.00	27,160.75	39,804.75	1,953,625.19
1,882.51	......	11,356.76	13,239.27	83,012.14
335,321.37	5,303.06	894,690.16	1,235,314.59	31,284,900.95
19,862.77	533.72	44,396.50	64,792.99	685,489.13
......	......	......	......	......
5,244	147	4,318	9,709	455,435
869	37	712	1,618	73,128
94	2	99	195	12,814
6,207	186	5,129	11,522	541,377

STATEMENT "C"

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Acton	1,885	127	80 c.p. *s*	9.00	1,829.01	0.97
		5	80 c.p. (twp.) *s*	12.00		
		61	100 watt *m*	9.00		
		1	150 watt *m*	12.00		
		4	300 watt *m*	20.00		
Agincourt		61	100 watt *m*	13.00	767.00	**
Ailsa Craig	468	61	100 watt *m*	10.00	628.00	1.34
		1	200 watt *m*	18.00		
Alexandria	1,928	95	100 watt *m*	17.00	2,640.00	1.37
		41	200 watt *m*	25.00		
Alliston	1,379	103	100 c.p. *s*	18.00	2,070.00	1.50
		12	100 watt *m*	18.00		
Alvinston	648	84	100 watt *m*	20.00	1,854.00	2.86
		6	200 watt *m*	29.00		
Amherstburg	3,128	82	100 c.p. *s*	15.00	2,310.08	††
		9	250 c.p. *s*	30.00		
		23	200 watt *m*	20.00		
		12	300 watt *m*	30.00		
Ancaster Twp.		32	100 watt *m*	12.50	1,053.76	**
		39	150 watt *m*	15.00		
		10	150 watt *m* (5½ mos.)	15.00		
Apple Hill		33	100 watt *m*	17.00	559.60	**
Arkona	397	48	100 watt *m*	20.00	960.00	2.42
Arthur	1,036	92	100 watt *m*	19.00	1,747.92	1.69
Athens	652	40	100 watt *m*	12.00	1,101.00	1.69
		23	200 watt *m*	27.00		
Aylmer	1,987	92	100 watt *m*	10.00	2,343.00	1.18
		24	300 watt *m*	25.00		
		1	40 watt traffic lt.	40.00		
Ayr	773	92	100 watt *m*	10.00	1,027.99	1.33
		3	500 watt *m*	36.00		
Baden		65	100 watt *m*	10.00	650.00	**
Barrie	7,686	465	150 c.p. *s*	9.00	5,973.25	0.78
		15	100 watt *m*	17.00		
		41	200 watt *m*	22.00		
		23	300 watt *m*	25.00		
Bath	355	21	100 watt *m*	34.00	714.00	2.01
Beachville		47	100 watt *m*	11.00	517.00	**

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita.
				$ c.	$ c.	$ c
Beaverton	989	104	100 watt *m*	10.00	1,290.04	1.30
		10	100 watt *m* (6 mos.)	7.00		
		6	500 watt *m*	30.00		
Beeton	601	65	150 c.p. *s*	15.00	1,185.00	1.97
		14	100 watt *m*	15.00		
Belle River	719	63	100 watt *m*	12.00	760.00	1.06
Belleville	14,012	549	100 c.p. *s*	9.00	11,666.50	0.83
		23	400 c.p. *s*	28.00		
		52	1,000 c.p. *s*	52.00		
		104	300 watt *m*	33.00		
Blenheim	1,702	164	150 c.p. *s*	12.00	2,511.00	††
		3	400 c.p. *s*	28.00		
		12	600 c.p. *s*	37.00		
Bloomfield	619	60	100 c.p. *s*	12.00	720.00	1.16
Blyth	626	100	100 watt *m*	13.00	1,300.00	2.08
Bolton	553	45	100 watt *m*	13.00	1,113.96	2.01
		23	200 watt *m*	23.00		
Bothwell	685	66	100 watt *m*	11.00	1,293.00	1.89
		21	300 watt *m*	27.00		
Bowmanville	3,626	177	100 c.p. *s*	14.00	4,187.74	1.15
		4	150 watt *m*	27.00		
		42	300 watt *m*	37.00		
Bradford	1,060	60	80 c.p. *s*	17.00	1,139.00	1.07
		7	100 watt *m*	17.00		
Brampton	5,550	667	100 watt *m*	8.00	5,453.16	0.98
		2	500 watt *m*	35.00		
		13	Fire alarm	6.50		
Brantford	30,611	149	1,500 c.p. *s*	45.00	33,080.33	††
		3,410	100 watt *m*	7.50		
		8	250 watt *m*	10.00		
		18	750 watt *m*	37.00		
		4	750 watt *m*	46.00		
		2	300 watt *m*	16.00		
Brantford Twp.		371	100 watt *m*	11.00	4,065.42	**
Brechin	‡	33	100 watt *m*	18.00	594.00	**
Bridgeport		57	100 watt *m*	10.00	588.50	**
		12	100 watt *m* (6 mos.)	7.00		
Brigden		41	60 watt *m*	11.00	745.00	**
		21	100 watt *m*	14.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.
‡Includes Mara and Thorah Townships.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Brighton	1,442	137	100 c.p. *s*	16.00	2,191.92	1.52
Brockville	9,654	593	100 c.p. *s*	11.00	8,822.00	0.91
		15	1 Lt. Stds. *s*	17.00		
		35	3 Lt. Stds. *s*	21.00		
		49	5 Lt. Stds. *s*	24.00		
		6	300 c.p. *s*	24.00		
Brussells	766	80	100 watt *m*	12.00	1,284.00	1.68
		18	200 watt *m*	18.00		
Burford	....	67	100 watt *m*	10.00	670.00	**
Burgessville	....	24	100 watt *m*	13.00	312.00	**
Caledonia	1,475	152	100 watt *m*	9.00	1,544.96	1.65
		20	100 watt *m*	9.50		
		8	100 watt *m*	13.00		
		2	300 watt *m*	21.00		
Campbellville	....	20	100 watt *m*	24.00	474.00	**
Cannington	864	61	100 watt *m*	14.00	1,022.00	1.18
		3	300 watt *m*	22.00		
		3	500 watt *m*	32.00		
Cardinal	1,395	42	100 watt *m*	15.00	907.00	0.65
		12	200 watt *m*	21.00		
Carleton Place	4,272	82	60 watt *m*	13.00	4,786.00	1.12
		101	200 watt *m*	20.00		
		68	300 watt *m*	25.00		
Cayuga	693	80	100 watt *m*	18.00	1,440.00	2.08
Chatham	16,140	35	150 c.p. *s*	12.00	19,095.53	††
		716	150 c.p. *s*	13.00		
		32	250 c.p. *s*	16.00		
		75	600 c.p. *s*	30.00		
		37	600 c.p. *s*	31.00		
		136	1,000 c.p. *s*	38.00		
		2	250 watt *m*	24.00		
			Park floodlights	357.50		
Chatsworth	308	41	100 watt *m*	12.00	492.00	1.60
Chesley	1,762	116	150 c.p. *s*	14.00	1,605.34	0.91
Chesterville	970	86	100 watt *m*	12.00	1,032.00	1.07
Chippawa	1,051	93	100 watt *m*	13.00	1,161.00	1.10
Clifford	440	62	100 watt *m*	14.00	868.00	1.99
Clinton	1,848	148	150 c.p. *s*	11.00	1,988.53	1.08
		29	100 watt *m*	11.00		
		1	500 watt *m*	55.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Cobourg	5,556	388 4 18	100 c.p. *s* 250 c.p. *s* 500 watt *m*	12.00 23.00 47.50	5,601.54	1.01
Colborne	1,040	115 3	60 c.p. *s* 100 watt *m*	12.00 12.00	1,317.25	1.27
Coldwater	....	6 47	60 watt *m* 100 watt *m*	9.00 11.00	571.00	0.90
Collingwood	5,536	354	100 c.p. *s*	8.00	2,832.00	0.51
Comber	....	26	100 watt *m*	18.00	471.00	**
Cookstown	....	56	150 c.p. *s*	15.00	840.00	**
Cottam	....	31	100 watt *m*	15.00	465.00	**
Courtright	338	43	100 watt *m*	18.00	774.00	2.29
Creemore	620	59	100 watt *m*	12.00	708.00	1.14
Dashwood	....	41	100 watt *m*	11.00	451.00	**
Delaware	....	22	100 watt *m*	12.00	264.00	**
Deseronto	1,399	128	100 watt *m*	14.00	1,791.96	1.28
Dorchester	....	63	100 watt *m*	10.00	612.47	**
Drayton	559	75	100 watt *m*	10.00	750.00	1.34
Dresden	1,469	127 15 12	100 c.p. *s* 50 watt *m* 100 watt *m*	13.00 4.56 12.00	1,862.24	1.27
Drumbo	....	39	100 watt *m*	13.00	507.00	**
Dublin	....	50	100 watt *m*	15.00	750.00	**
Dundalk	650	82	100 watt *m*	15.00	1,230.00	1.89
Dundas	5,032	286 18 54	100 watt *m* 200 watt *m* 200 watt *m*	12.00 16.00 32.00	5,487.00	1.09
Dunnville	3,632	249 27	150 c.p. *s* 1,000 c.p. *s*	11.00 45.00	3,945.56	1.09
Durham	1,776	105 6	150 c.p. *s* 400 c.p. *s*	17.00 25.00	1,935.00	1.09
Dutton	798	112	100 watt *m*	9.00	1,010.94	1.27
East Windsor	14,009	338 194	100 watt *m* 200 watt *m*	8.00 14.00	8,419.92	††

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
East York Twp.	....	1	60 watt *m*	7.80	19,553.92	**
		944	100 watt *m*	13.00		
		4	200 watt *m*	19.50		
		2	250 watt *m*	22.75		
		251	300 watt *m*	26.00		
		20	500 watt *m*	29.00		
Elmira	2,672	190	100 watt *m*	9.00	1,834.00	0.69
		8	200 watt *m*	12.00		
		1	500 watt *m*	28.00		
Elmvale	....	50	100 watt *m*	13.00	650.00	**
Elmwood	....	23	150 watt *m*	23.00	529.00	**
Elora	1,152	81	100 watt *m*	14.00	1,674.00	1.45
		27	200 watt *m*	20.00		
Embro	436	56	100 watt *m*	12.00	676.00	1.55
Erieau	273	21	100 watt *m*	18.00	369.00	1.35
Essex	1,786	121	60 watt *m*	10.00	3,046.99	1.71
		30	100 watt *m*	10.00		
		4	200 watt *m*	22.00		
		61	300 watt *m*	24.00		
		1	500 watt *m*	30.00		
Etobicoke Twp.	....	996	100 watt *m*	13.50	13,443.87	**
		22	100 watt *m*	18.00		
Exeter	1,606	167	100 watt *m*	9.50	1,995.25	1.24
		3	100 watt *m* (Park lts.)	9.50		
		22	200 watt *m*	18.00		
Fergus	2,560	153	100 watt *m*	14.00	2,714.31	1.06
		37	150 watt *m*	16.50		
Finch	393	38	100 watt *m*	15.00	570.00	1.45
Flesherton	488	53	100 watt *m*	11.00	621.00	1.27
		1	300 watt *m*	26.00		
		2	60 watt *m*	6.00		
Fonthill	872	71	100 watt *m*	15.00	1,065.00	1.22
Forest	1,487	131	60 watt *m*	7.00	2,321.00	1.56
		123	100 watt *m*	11.00		
			Station platform *m*	51.00		
Fort William	24,709	398	150 c.p. *s*	8.00	17,293.91	0.70
		16	400 c.p. *s*	18.00		
		80	600 c.p. *s*	28.00		
		201	1,000 c.p. *s*	38.00		
		176	100 watt *m*	8.00		
		13	300 watt *m*	23.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps		Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
					$ c.	$ c.	$ c.
Galt	14,057	972	100 c.p.	*s*	9.00	20,594.00	1.46
		316	75 watt	*m*	13.00		
		100	100 watt	*m*	12.00		
		18	150 watt	*m*	16.00		
		152	150 watt	*m*	25.00		
		70	300 watt	*m*	35.00		
Georgetown	2,224	174	100 watt	*m*	11.00	2,146.00	*
		16	100 watt	*m*	13.00		
		1	300 watt	*m*	19.00		
Glencoe	827	112	100 watt	*m*	14.00	1,945.64	2.35
		19	200 watt	*m*	20.00		
Goderich	4,394	325	100 c.p.	*s*	9.00	3,791.50	0.86
		8	100 watt	*m*	15.00		
		8	200 watt	*m*	25.00		
		16	3 lt. stds.	*m*	35.00		
Grand Valley	589	52	100 watt	*m*	18.00	936.00	1.59
Granton		37	100 watt	*m*	10.00	370.00	**
Gravenhurst	1,956	135	80 c.p.	*s*	10.00	2,179.00	1.11
		7	100 c.p.	*s*	11.00		
		30	100 watt	*m*	10.00		
		16	300 watt	*m*	35.00		
Guelph	21,048	12	50 watt	*m*	4.00	18,549.86	0.88
		6	50 watt	*m*	4.00		
		1,365	100 watt	*m*	10.00		
		172	200 watt	*m*	12.50		
		35	300 watt	*m*	18.75		
		9	500 watt	*m*	25.00		
		53	500 watt (220v)	*m*	34.00		
		1	Airport beacon		60.00		
Hagersville	1,355	116	100 watt	*m*	12.00	1,732.00	1.28
		17	300 watt	*m*	20.00		
Hamilton	153,504	10	40 watt	*m*	4.50	123,817.93	0.81
		96	50 watt	*m*	6.00		
		8,319	100 watt	*m*	7.50		
		1,170	200 watt	*m*	11.00		
		8	300 watt	*m*	18.00		
		28	300 watt	*m*	26.00		
		77	300 watt	*m*	32.00		
		25	300 watt	*m*	34.00		
		480	500 watt	*m*	32.00		
		605	500 watt	*m*	37.00		
		65	750 watt	*m*	55.00		
		3	Danger sig. stds.		28.00		
		2	Danger sig. stds.		70.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.

††Part cost paid direct in form of debenture charges.

*Includes Glen Williams.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps		Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
					$ c.	$ c.	$ c.
Hanover	3,039	91	150 c.p.	*s*	23.00	2,992.00	0.98
		16	250 c.p.	*s*	28.00		
		5	100 watt	*m*	23.00		
		12	200 watt	*m*	28.00		
Harriston	1,321	82	150 c.p.	*s*	12.00	1,479.00	1.12
		5	100 watt	*m*	12.00		
		29	200 watt	*m*	15.00		
Harrow	928	1	100 watt	*m*	12.00	1,288.63	1.39
		78	200 watt	*m*	16.50		
Hastings	753	60	100 watt	*m*	20.00	1,290.34	1.71
		3	200 watt	*m*	25.00		
		2	100 watt (6 mos.)	*m*	39.00		
Havelock	1,249	63	100 c.p.	*s*	16.00	1,508.00	1.21
		20	250 c.p.	*s*	25.00		
Hensall	697	83	100 watt	*m*	12.00	996.00	1.43
Hespeler	2,798	91	150 c.p.	*s*	11.00	2,965.00	1.06
		34	250 c.p.	*s*	16.00		
		15	400 c.p.	*s*	30.00		
		51	150 watt	*m*	10.00		
		10	300 watt	*m*	21.50		
		7	300 watt	*m*	35.00		
Highgate	343	40	100 watt	*m*	11.00	570.00	1.66
		6	200 watt	*m*	17.00		
		1	300 watt	*m*	25.00		
Holstein	......	14	100 watt	*m*	25.00	350.00	**
Humberstone	2,442	104	100 watt	*m*	12.00	1,367.00	0.56
		7	200 watt	*m*	17.00		
Huntsville	2,563	47	100 c.p.	*s*	14.00	2,714.35	1.06
		26	150 c.p.	*s*	18.00		
		28	250 c.p.	*s*	22.00		
		68	75 watt	*m*	10.00		
		109	75 watt	*m*	42.00 per kw.		
Ingersoll	5,104	13	100 c.p.	*s*	5.50	4,851.48	††
		310	100 c.p.	*s*	11.00		
		2	600 c.p.	*s*	28.00		
		2	1,000 c.p.	*s*	25.00		
		26	1,000 c.p.	*s*	35.00		
		11	300 watt	*m*	30.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.

††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Jarvis	531	70	100 watt *m*	12.00	840.00	1.58
Kemptville	1,227	90	100 watt *m*	20.00	1,830.00	1.49
		1	250 w. Fl. light *m*	30.00		
Kincardine	2,511	151	150 c.p. *s*	20.00	4,133.75	1.65
		20	100 watt *m*	15.00		
		36	100 w. (5 mos.) *m*	15.00		
		36	200 w. (7 mos.) *m*	25.00		
		1	1,000 w. (3 mos.) *m*	85.00		
		1	1,000 w. (6 mos.) *m*	85.00		
Kingston	23,725	98	100 c.p. *s*	12.00	22,065.86	0.93
		273	600 c.p. *s*	35.00		
		250	600 c.p. *s*	46.00		
Kingsville	2,354	112	150 c.p. *s*	11.00	2,994.46	††
		25	250 c.p. *s*	16.00		
		122	100 watt *m*	11.00		
Kirkfield	......	23	100 watt *m*	20.00	460.00	**
Kitchener	31,252	47	16 c.p. *s*	7.00	32,018.76	††
		2,036	80 c.p. *s*	9.00		
		83	250 c.p. *s*	13.00		
		18	1,000 c.p. *s*	25.00		
		201	100 watt *m*	9.00		
		430	200 watt *m*	15.00		
		50	300 watt *m*	17.50		
		116	500 watt *m*	25.00		
Lakefield	1,387	109	100 watt *m*	17.00	1,845.87	1.33
Lambeth	......	36	100 watt *m*	12.00	432.00	**
Lanark	623	37	100 watt *m*	16.00	592.00	0.95
Lancaster	575	41	100 watt *m*	36.50	1,496.50	2.60
La Salle	600	66	100 watt *m*	15.00	495.00	0.83
Leamington	5,004	175	250 c.p. *s*	16.00	5,691.85	††
		4	400 c.p. *s*	20.00		
		192	100 watt *m*	15.00		
Lindsay	6,963	410	100 c.p. *s*	15.00	7,977.46	1.15
		27	1,000 c.p. *s*	70.00		
Listowel	2,775	162	60 watt *m*	9.00	3,840.60	1.38
		118	100 watt *m*	11.00		
		8	200 watt *m*	25.00		
		26	300 watt *m*	30.00		
		3	500 watt *m*	35.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
London	73,726	16	100 c.p. *s*	10.00	54,217.56	††
		8	150 c.p. *s*	10.00		
		1,938	150 c.p. *s*	11.00		
		109	400 c.p. *s*	18.00		
		305	400 c.p. *s*	24.00		
		276	600 c.p. *s*	30.00		
		116	100 watt *m*	10.00		
		25	100 watt *m*	14.00		
		12	200 watt *m*	9.34		
		27	200 watt *m*	14.00		
		488	300 watt *m*	18.00		
		42	300 watt *m*	20.00		
		11	500 watt *m*	25.00		
		12	500 watt *m*	40.00		
		56	600 watt *m*	40.00		
		2	600 watt *m*	5.00		
London Twp.	....	68	100 watt *m*	12.00	832.50	**
		1	200 watt *m*	16.50		
Long Branch	3,550	265	100 watt *m*	13.00	3,682.98	1.04
		27	Empty sockets *m*	9.50		
Lucan	528	71	100 watt *m*	14.00	994.00	1.88
Lucknow	964	72	100 watt *m*	21.00	1,512.00	1.57
Lynden	....	43	100 watt *m*	10.00	430.00	**
Madoc	1,067	368	25 watt *m*	4.00	1,500.00	1.41
		62	100 watt *m*	6.00		
		1	300 watt *m*	12.00		
Markdale	792	90	150 c.p. *s*	10.00	900.00	1.14
Markham	1,060	113	100 watt *m*	12.00	1,356.00	1.28
Marmora	1,015	44	75 watt *m*	15.00	1,450.00	1.43
		24	100 watt *m*	17.00		
		19	150 watt *m*	20.00		
Martintown	....	15	100 watt *m*	20.00	300.00	**
Maxville	725	65	100 c.p. *s*	22.00	1,430.04	1.97
Meaford	2,687	180	150 c.p. *s*	12.00	3,196.00	1.19
		28	100 watt *m*	12.00		
		35	200 watt *m*	20.00		
Merlin	....	43	100 watt *m*	16.00	688.00	**
Merritton	2,487	303	100 watt *m*	9.00	3,352.00	1.35
		25	300 watt *m*	25.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Midland	6,925	327	150 c.p. *s*	10.00	6,147.50	0.89
		52	100 watt *m*	10.00		
		30	300 watt *m*	22.00		
		36	500 watt *m*	40.00		
		35	100 w. (Park) *m*	7.50		
Mildmay	714	44	100 watt *m*	14.00	847.00	1.19
		11	150 watt *m*	21.00		
Milton	1,804	205	100 watt *m*	9.50	2,033.81	1.13
		3	300 watt *m*	30.00		
Milverton	1,002	95	100 watt *m*	9.00	999.00	1.00
		12	200 watt *m*	12.00		
Mimico	6,696	330	100 watt *m*	12.00	7,002.00	1.05
		91	200 watt *m*	20.00		
		47	300 watt *m*	26.00		
Mitchell	1,497	232	150 c.p. *s*	9.00	2,088.00	1.40
Moorefield		25	100 watt *m*	15.00	375.00	**
Mount Brydges		52	100 watt *m*	10.00	520.00	**
Mount Forest	1,839	118	150 c.p. *s*	11.00	2,220.75	1.21
		39	250 c.p. *s*	14.00		
		35	100 watt *m*	11.00		
Napanee	2,827	148	100 c.p. *s*	16.00	4,744.93	1.68
		2	250 c.p. *s*	37.00		
		2	250 watt *m*	37.00		
		5	300 watt *m*	37.00		
		40	300 watt *m*	32.00		
		22	400 watt *m*	37.00		
Neustadt	458	39	150 c.p. *s*	25.00	975.00	2.13
Newbury	256	48	100 watt *m*	15.00	720.00	2.81
New Hamburg	1,457	165	100 watt *m*	9.00	2,202.00	1.51
		61	200 watt *m*	12.00		
New Toronto	7,484	221	75 watt *m*	13.00	8,697.48	1.16
		17	150 watt *m*	15.50		
		15	200 watt *m*	17.00		
		28	300 watt *m*	21.00		
		14	300 watt *m*	22.00		
		131	500 watt *m*	33.00		
		3	Intersection lts. *m*	29.00		
Niagara Falls	18,193	812	100 c.p. *s*	11.00	28,355.65	1.56
		3	250 c.p. *s*	13.00		
		60	600 c.p. *s*	18.00		
		234	600 c.p. *s*	40.00		
		197	1,000 c.p. *s*	45.00		
		4	100 watt *m*	11.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Niagara-on-the-Lake	1,614	219	100 watt *m*	11.00	2,859.00	1.77
		25	200 watt *m*	18.00		
Nipigon		34	100 watt *m*	15.00	510.00	**
North York Twp.		81	100 watt *m*	12.00	3,707.32	**
		20	100 watt *m*	13.00		
		32	100 watt *m*	13.50		
		12	100 watt *m*	15.00		
		10	100 watt *m*	16.50		
		65	200 watt *m*	23.00		
		1	400 watt *m*	31.00		
		2	1,000 watt *m*	65.00		
		1	Safety light *m*	30.00		
		1	Police sign *m*	12.00		
Norwich	1,196	114	100 watt *m*	10.00	2,120.00	1.77
		28	400 watt *m*	35.00		
Norwood	868	79	100 c.p. *s*	18.00	1,569.00	1.81
		6	100 c.p. *s*	20.00		
		1	100 c.p. *s*	27.00		
Oil Springs	462	40	100 watt *m*	18.00	750.00	1.62
		1	300 watt *m*	60.00		
Omemee	551	48	100 c.p. *s*	14.00	956.40	1.74
		2	100 watt *m*	12.50		
		10	250 watt *m*	28.00		
Orangeville	2,785	99	150 c.p. *s*	13.00	3,387.00	1.22
		48	250 c.p. *s*	20.00		
		38	300 watt *m*	30.00		
Oshawa	22,444	839	100 c.p. *s*	10.00	10,611.72	0.47
		1	1,000 c.p. *s*	27.00		
		40	100 watt *m*	11.00		
		109	150 watt *m*	12.00		
		30	200 watt *m*	16.00		
Ottawa	132,551	661	100 c.p. *s* (Driveway)	6.00	73,796.29	0.56
		368	100 c.p. *s*	7.00		
		821	400 c.p. *s*	25.00		
		836	600 c.p. *s*	35.00		
		59	Arcs *s*	45.00		
		2,910	100 watt *m* (white way)	48c. per ft.		
		30	100 watt *m* (residential)	5½c. per ft.		
Otterville		54	100 watt *m*	11.00	786.00	**
		12	200 watt *m*	16.00		
Owen Sound	12,894	429	100 c.p. *s*	13.00	12,832.96	0.99
		338	250 c.p. *s*	16.00		
		12	400 c.p. *s*	23.00		
		39	500 c.p. *s*	37.00		

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps		Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
					$ c.	$ c.	$ c.
Paisley	713	88	100 watt	*m*	16.00	1,408.00	1.97
Palmerston	1,600	82	80 c.p.	*s*	9.00	1,941.57	1.21
		17	400 c.p.	*s*	25.00		
		10	60 watt	*m*	9.00		
		10	100 watt	*m*	10.00		
		9	150 watt	*m*	10.00		
		6	250 watt	*m*	25.00		
		12	300 watt	*m*	25.00		
		2	500 watt	*m*	35.00		
Paris	4,297	463	100 c.p.	*s*	8.50	5,450.50	1.27
		10	400 c.p.	*s*	28.00		
		25	500 c.p.	*s*	35.00		
		2	60 watt	*m*	7.00		
		2	100 watt	*m*	9.00		
		8	500 watt	*m*	35.00		
Parkhill	1,021	78	100 watt	*m*	14.00	1,437.00	1.41
		15	200 watt	*m*	23.00		
Penetanguishene	4,352	184	100 c.p.	*s*	11.00	2,149.00	0.49
		3	200 watt	*m*	15.00		
		4	300 watt	*m*	20.00		
Perth	4,052	70	100 c.p.	*s*	15.00	2,066.00	0.51
		12	250 c.p.	*s*	25.00		
		7	400 c.p.	*s*	28.00		
		13	600 c.p.	*s*	40.00		
Peterborough	22,850	215	60 watt	*m*	12.00	21,637.68	0.95
		362	100 watt	*m*	13.00		
		536	300 watt	*m*	20.00		
		81	300 watt	*m*	45.00		
Petrolia	2,715	145	150 c.p.	*s*	12.00	2,652.00	0.98
		24	600 c.p.	*s*	38.00		
Picton	3,313	222	100 c.p.	*s*	12.00	4,364.04	1.32
		85	250 c.p.	*s*	20.00		
Plattsville	....	34	100 watt	*m*	12.00	408.00	**
Point Edward	1,336	100	150 c.p.	*s*	13.00	1,593.48	1.19
		15	250 c.p.	*s*	20.00		
Port Arthur	20,064	2,709	100 watt	*m*	5.00	18,984.96	0.95
		232	300 watt	*m*	10.00		
		208	500 watt	*m*	15.00		
Port Colborne	5,417	15	400 c.p.	*s*	23.00	7,740.14	††
		78	600 c.p.	*s*	25.00		
		127	100 watt	*m*	12.00		
		34	100 watt	*m*	14.00		
		232	200 watt	*m*	18.00		
Port Credit	1,650	271	100 watt	*m*	10.00	2,710.00	1.64

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STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Port Dalhousie..	1,495	129	100 watt *m*	12.50	1,636.25	1.09
		2	200 watt *m*	15.00		
Port Dover.........	1,692	198	100 watt *m*	12.00	3,101.00	1.83
		25	100 watt (summer) *m*	7.00		
		16	300 watt *m*	20.00		
		3	300 watt (summer) *m*	10.00		
		1	Decorative str. *m*	200.00		
Port Elgin..........	1,351	104	100 watt *m*	14.00	2,162.16	1.60
		13	100 watt (4 mos.) *m*	14.00		
		21	100 watt (3 mos.) *m*	14.00		
		26	200 watt *m*	22.00		
Port Hope..........	4,520	385	80 c.p. *s*	12.00	4,620.00	1.02
Port McNicoll....	880	47	100 watt *m*	12.50	927.50	1.05
		17	200 watt *m*	20.00		
Port Perry..........	1,104	99	100 watt *m*	15.00	1,471.25	1.33
Port Rowan........	692	48	100 watt *m*	24.00	1,242.00	1.79
		5	100 watt (9 mos.) *m*	24.00		
Port Stanley........	742	186	100 watt *m*	11.00	2,045.63	2.76
Prescott..............	3,083	169	100 watt *m*	10.00	3,475.00	1.13
		105	200 w. 2 lt. std. *m*	17.00		
Preston...............	6,189	347	150 c.p. *s*	10.00	5,004.09	0.81
		9	250 watt *m*	18.00		
		40	500 watt *m*	30.00		
		6	5 lt. standards *m*	30.00		
Priceville...........	....	14	100 watt *m*	40.00	560.00	**
Princeton	....	37	100 watt *m*	13.00	481.00	**
Queenston..........	....	19	100 watt *m*	16.00	304.42	**
Richmond...........	413	26	100 watt *m*	20.00	520.04	1.26
Richmond Hill..	1,299	99	75 watt *m*	11.00	1,389.00	1.07
		17	100 watt *m*	12.00		
		6	200 watt *m*	16.00		
Ridgetown..........	1,914	187	150 c.p. *s*	9.00	3,122.50	††
		1	1,000 c.p. *s*	40.00		
		73	100 watt *m*	9.00		
		2	200 watt *m*	30.00		
		19	500 watt *m*	36.00		
Ripley.................	465	43	100 watt *m*	20.00	1,070.00	2.30
		6	200 watt *m*	35.00		
Riverside	4,975	95	100 watt *m*	11.00	2,499.96	0.50
		24	150 watt *m*	14.50		

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STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Rockwood		85	100 watt *m*	9.00	765.00	**
Rodney	748	73	100 watt *m*	10.00	982.02	1.31
		14	200 watt *m*	18.00		
Rosseau	286	35	100 watt *m*	35.40	1,239.00	4.33
Russell		46	100 watt *m*	16.00	740.00	**
St. Catharines	26,161	2,704	100 watt *m*	7.50	20,561.66	††
St. George		39	100 watt *m*	9.50	370.50	**
St. Jacobs		46	100 watt *m*	10.00	460.00	**
St. Marys	4,023	225	100 c.p. *s*	10.00	4,660.16	1.16
		106	250 c.p. *s*	14.00		
		19	150 watt *m*	12.00		
		32	300 watt *m*	22.00		
St. Thomas	16,072	1,078	100 c.p. *s*	9.00	14,656.97	††
		27	250 c.p. *s*	13.00		
		114	600 c.p. *s*	34.00		
		1	600 c.p. *s*	32.00		
		22	300 watt *m*	22.00		
		6	60 watt *m*	4.50		
		34	100 watt (park) *m*	5.00		
		5	60 watt (park) *m*	3.00		
Sandwich	10,559	291	100 c.p. *s*	12.00	8,458.14	††
		316	100 c.p. *s*	13.00		
		14	250 c.p. *s*	21.00		
		40	400 c.p. *s*	26.00		
		13	400 c.p. *s*	28.00		
		10	100 watt *m*	12.00		
		31	100 watt *m*	13.00		
Sarnia	17,620	1,026	150 c.p. *s*	12.00	18,623.73	††
		56	250 c.p. *s*	16.50		
		65	400 c.p. *s*	22.00		
		79	600 c.p. *s*	35.00		
		13	600 c.p. *s*	45.00		
		3	100 watt *m*	12.00		
		8	150 watt *m*	16.50		
		14	300 watt *m*	32.00		
Scarboro Twp.		10	100 c.p. (empty) *s*	9.00	14,346.96	**
		212	100 c.p. *s*	12.00		
		2	250 c.p. *s*	17.00		
		19	40 watt *m*	12.00		
		2	60 watt *m*	18.00		
		413	100 watt *m*	12.00		
		25	100 w. (empty) *m*	9.00		
		7	200 watt *m*	17.00		
		10	200 watt *m*	21.00		
		153	300 watt *m*	24.00		
		154	300 w. (empty) *m*	14.50		

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STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Seaforth	1,697	65	80 c.p. *s*	10.00	1,788.00	1.05
		58	100 c.p. *s*	11.00		
		20	300 watt *m*	25.00		
Shelburne	1,121	96	150 c.p. *s*	11.00	1,056.00	0.94
Simcoe	5,174	273	100 c.p. *s*	11.00	4,514.83	††
		27	1,000 c.p. *s*	40.00		
		7	150 watt *m*	11.00		
		8	200 watt *m*	15.00		
		6	200 watt *m*	24.00		
		2	500 watt *m*	53.00		
		1	1,000 watt *m*	60.00		
Smiths Falls	7,502	18	60 watt *m*	9.50	7,665.00	1.02
		105	100 watt *m*	18.00		
		1	200 watt *m*	25.00		
		86	300 watt *m*	13.00		
		168	300 watt *m*	25.00		
Southampton	1,356	110	100 watt *m*	13.00	2,294.00	1.69
		4	100 w. (9 mos.) *m*	13.00		
		32	250 watt *m*	21.00		
		39	60 w. (3 mos.) *m*	12.00		
		String	Decorative lts. *m*	36.00		
Springfield	372	51	100 watt *m*	11.00	552.75	1.49
Stamford Twp.	......	853	100 watt *m*	9.00	7,656.75	**
Stayner	995	75	150 c.p. *s*	14.00	1,410.00	1.42
		18	200 watt *m*	20.00		
Stirling	949	87	100 c.p. *s*	12.00	1,453.25	1.53
		5	150 watt *m*	12.00		
		15	500 watt *m*	33.00		
Stouffville	1,174	126	100 watt *m*	13.00	1,638.00	1.40
Stratford	18,673	864	100 c.p. *s*	10.00	16,458.81	0.88
		74	600 c.p. *s*	25.00		
		116	600 c.p. *s*	30.00		
		6	600 c.p. *s*	35.00		
		63	1,000 c.p. *s*	34.00		
		4	100 watt *m*	10.00		
		4	500 watt *m*	34.00		
Strathroy	2,887	298	100 c.p. *s*	9.00	4,050.96	1.40
		21	250 c.p. *s*	15.00		
		34	300 watt *m*	31.00		
Sunderland	......	29	100 watt *m*	20.00	720.00	**
		4	500 watt *m*	35.00		
Sutton	806	118	100 watt *m*	13.00	1,886.50	2.34
		32	100 w. (3 mos.) *m*	13.00		
		15	200 watt *m*	17.00		

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STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Tara	505	67	100 watt *m*	16.00	1,126.00	2.23
		3	100 watt *m*	18.00		
Tavistock	1,050	81	100 watt *m*	10.00	1,225.66	1.17
		37	200 watt *m*	12.00		
Tecumseh	2,423	8	400 c.p. *s*	21.00	960.00	††
		60	100 watt *m*	12.00		
Teeswater	796	38	150 c.p. *s*	19.00	1,402.00	1.76
		20	300 c.p. *s*	34.00		
Thamesford		47	100 watt *m*	11.00	517.00	**
Thamesville	763	68	100 watt *m*	9.00	1,193.52	1.56
		33	200 watt *m*	14.00		
		7	200 watt *m*	18.00		
Thedford	572	69	100 watt *m*	15.00	1,035.00	1.81
Thorndale		32	100 watt *m*	12.00	384.00	**
Thornton		22	100 watt *m*	40.00	880.00	**
Thorold	4,945	397	75 watt *m*	7.50	3,663.50	0.74
		40	100 watt *m*	8.00		
		28	200 watt *m*	12.00		
		2	300 watt *m*	15.00		
Tilbury	1,897	101	100 watt *m*	11.00	1,591.20	0.84
		25	200 watt *m*	19.50		
Tillsonburg	3,380	264	100 c.p. *s*	8.50	4,379.28	1.30
		1	250 c.p. *s*	13.00		
		8	300 watt *m*	32.00		
		44	500 watt *m*	42.00		
Toronto	626,674	46,320	100 watt *m*	8.00–10.00	553,936.40	0.88
		3,278	200 watt *m*	18.00–23.00		
		67	250 watt *m*	20.00		
		1,415	300 watt *m*	28.00–30.00		
		160	500 watt *m*	45.00		
		5	1,000 watt *m*	90.00		
		344	100 w. 5-lt. stds. *m*	47.50		
		88	500 w. 1-lt. std. *m*	47.50		
		391	300 w. 1-lt. std. *m*	50.00		
		75	500 w. 1-lt. std. *m*	52.50		
Toronto Twp.		411	100 watt *m*	12.00	4,975.20	**
		1	Intersection Lt.	43.00		
Tottenham	556	49	150 c.p. *s*	25.00	1,225.08	2.20
Trenton	6,288	49	600 c.p. *s*	75.00	8,076.00	1.28
		309	100 watt *m*	14.00		
		1	500 watt *m*	75.00		
Tweed	1,287	125	100 c.p. *s*	15.00	1,875.00	1.46

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Continued

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Uxbridge	1,512	129	100 watt *m*	13.00	1,743.02	1.15
		5	100 w. (6 mos.) *m*	10.00		
		1	200 watt *m*	16.00		
Victoria Harbor	1,126	78	100 watt *m*	9.00	702.00	0.62
Walkerton	2,370	116	150 c.p. *s*	12.50	2,402.04	1.01
		38	250 c.p. *s*	24.50		
		1	50 watt *m*	6.00		
		String	Decorative lts.	180.00		
Walkerville	10,458	33	600 c.p. *s*	42.00	11,640.96	††
		138	100 watt *m*	8.00		
		332	150 watt *m*	11.00		
		63	200 watt *m*	13.00		
		110	300 watt *m*	18.00		
Wallaceburg	4,457	188	150 c.p. *s*	12.00	4,168.00	0.94
		12	400 c.p. *s*	22.00		
		50	300 watt *m*	33.00		
Wardsville	240	36	100 watt *m*	20.00	720.00	3.00
Warkworth	......	34	100 watt *m*	18.00	672.00	**
		2	200 watt *m*	30.00		
Waterdown	919	72	100 watt *m*	11.00	932.00	1.01
		8	200 watt *m*	17.50		
Waterford	1,213	157	100 watt *n*	8.00	1,514.00	1.25
		9	200 watt *m*	15.00		
		3	500 watt *m*	25.00		
		4	100 watt (twp.) *m*	12.00		
Waterloo	8,714	342	80 c.p. *s*	8.00	7,514.42	0.86
		120	100 c.p. *s*	10.00		
		93	150 watt *m*	10.00		
		5	200 watt *m*	12.00		
		18	300 watt *m*	21.00		
		3	500 watt *m*	30.00		
		9	500 watt *m*	35.00		
		10	300 watt *m*	25.00		
		44	450 watt *m*	36.00		
Watford	941	90	100 watt *m*	12.50	1,344.96	1.43
		11	200 watt *m*	20.00		
Waubaushene	....	45	100 watt *m*	9.00	405.00	**
Welland	10,655	178	600 c.p. *s*	30.00	10,864.34	††
		14	600 c.p. *s* (Park 3½M.)	30.00		
		423	100 watt *m*	11.00		
		30	200 watt *m*	18.00		
		4	500 watt *m*	28.00		
		6	300 watt *m*	30.00		
		6	300 w. (empty) *m*	30.00		
Wellesley	....	60	100 watt *m*	12.00	720.00	**

**Population not shown in Government statistics. *s* Syeries sstem. *m* Multiple system.
††Part cost paid direct in form of debenture charges.

STATEMENT "C"—Concluded

Street Lighting Installation in Hydro Municipalities, December 31, 1934, showing Rate per Lamp, Cost to Municipality per Annum, and Cost per Capita.

Municipality	Population	Number of lamps	Size and style of lamps	Rate per lamp per annum	Total cost to municipality per annum	Cost per capita
				$ c.	$ c.	$ c.
Wellington	920	46	100 c.p. *s*	12.00	1,160.04	1.26
		32	150 c.p. *s*	19.00		
West Lorne	776	83	100 watt *m*	10.00	1,010.00	1.30
		10	200 watt *m*	18.00		
Weston	4,828	459	100 c.p. *s*	7.50	7,606.38	1.58
		1	250 c.p. *s*	10.00		
		113	600 c.p. stds. *s*	30.00		
		20	300 watt *m*	11.00		
		5	5-lt. standards *m*	21.00		
		2	Signs *m*	110.00		
Westport	738	2	50 watt *m*	15.00	1,383.50	1.87
		59	100 watt *m*	23.00		
Wheatley	754	63	100 watt *m*	12.00	1,311.00	1.74
		37	150 watt *m*	15.00		
Whitby	5,297	123	80 c.p. *s*	10.00	3,695.61	0.70
		72	100 c.p. *s*	11.00		
		165	100 watt *m*	8.50		
		3	500 watt *m*	12.50		
Wiarton	1,815	100	100 watt *m*	16.00	2,300.00	1.27
		25	200 watt *m*	28.00		
Williamsburg	....	16	100 watt *m*	15.00	240.00	**
Winchester	930	118	100 watt *m*	9.00	1,062.00	1.14
Windermere	130	13	100 watt *m*	35.00	455.00	3.50
Windsor	61,173	2,892	100 c.p. *s*	11.50	76,078.97	††
		11	250 c.p. *s*	17.50		
		984	400 c.p. *s*	27.50		
		804	600 c.p. *s*	36.00		
		2	1,000 c.p. *s*	46.00		
Wingham	1,923	101	150 c.p. *s*	19.00	3,423.00	1.78
		25	250 c.p. *s*	32.00		
		22	200 watt *m*	32.00		
Woodbridge	740	90	100 watt *n*	10.00	900.00	1.22
Woodstock	11,007	547	100 c.p. *s*	8.00	8,064.05	0.73
		12	250 c.p. *s*	20.00		
		91	75 watt *m*	8.00		
		25	150 watt *m*	12.00		
		75	300 watt *m*	32.00		
		1	250 watt *m*	12.00		
Woodville	420	36	100 watt *m*	12.00	532.00	1.27
		5	200 watt *m*	20.00		
Wyoming	505	51	100 watt *m*	15.00	765.00	1.51
Zurich	....	63	100 watt *m*	11.00	693.00	**

**Population not shown in Government statistics. *s* Series system. *m* Multiple system.
††Part cost paid direct in the form of debenture charges.

STATEMENT "D"

(pages 402 to 419)

Statistics Relating to the Supply of Electrical Energy to Consumers by Individual Ontario Municipalities Served by The Hydro-Electric Power Commission for the year 1934

STATEMENT "E"

(pages 420 to 435)

Cost of Power to Municipalities and Rates to Consumers for Domestic Service—Commercial Light Service— Power Service in Urban Municipalities Served by The Hydro-Electric Power Commission for the year 1934

STATEMENT "D"

Statistics Relating to the Supply of Electrical Energy to Consumers in Urban Municipalities Served by The Hydro-Electric Power Commission

Regarding the results of Hydro operation from the standpoint of the consumers, the following tabulation gives much useful and interesting information. For each main class of service in each urban municipal utility receiving power at cost from the Commission, Statement "D" lists the revenue, the consumption and the number of consumers, together with unit average costs and consumptions and other pertinent data.

The policy and practice of the Commission has been, and is, to make as widespread and beneficial a distribution of electrical energy as possible, and to extend to every community that can economically be reached by transmission lines, the benefit of electrical service. Even where, in certain localities, by reason of the distance from a source of supply or on account of the small quantity of power required by the municipality, the cost per horsepower to the municipality —and, consequently, the cost of service to the consumer—must unavoidably be higher than in more favourably situated communities, service has not been withheld when the consumers were able and willing to pay the cost.

The accompanying diagram summarizes graphically certain data of Statement "D," respecting the average cost to the consumer. It will be observed that the total amount of the energy sold in municipalities where circumstances necessitate rates which result in the higher average costs to the consumer is relatively insignificant. With respect to power service, it should be noted that the statistics of Statement "D," and of the diagram, cover mainly retail power service supplied to the smaller industrial consumers. The average amount of power taken by the industrial consumers served by the municipalities is about 40 horsepower. The Commission serves certain large power consumers direct on behalf of the various systems of municipalities.

It should be kept in mind that the revenues reported in Statement "D," and used for purposes of calculating the net unit costs to the consumer, are the total revenues contributed by the consumers, and include, in addition to the cost of power, sums specifically applicable to the retirement of capital, and also operating surplus which is in part applied to retirement of capital or extension of plant and is in part returned in cash to the consumers.

It should also be noted that average costs per kilowatt-hour or per horsepower if employed indiscriminately as a criterion by means of which to compare the rates or prices for electrical service in various municipalities, will give misleading results. The average costs per kilowatt-hour, as given in Statement "D" for respective classes of service in each municipality, are statistical results obtained by dividing the respective revenues by the aggregate kilowatt-hours sold. As such, the data reflect the combined influence of a number of factors, of which the rates or prices to consumers are but one factor. Owing to the varying influence of factors other than the rates, it is seldom found that in any two municipalities the average cost per kilowatt-hour to the consumers, even of the same classification, is in proportion to the respective rates for service. Instances even occur where for a class of consumers in one municipality, the average costs per kilowatt-hour are substantially lower than for the same class in another municipality, even though the rates are higher.

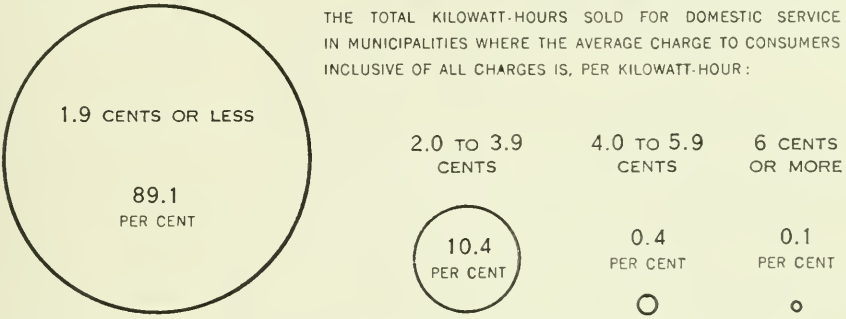
COST OF ELECTRICAL SERVICE

IN MUNICIPALITIES SERVED BY THE

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

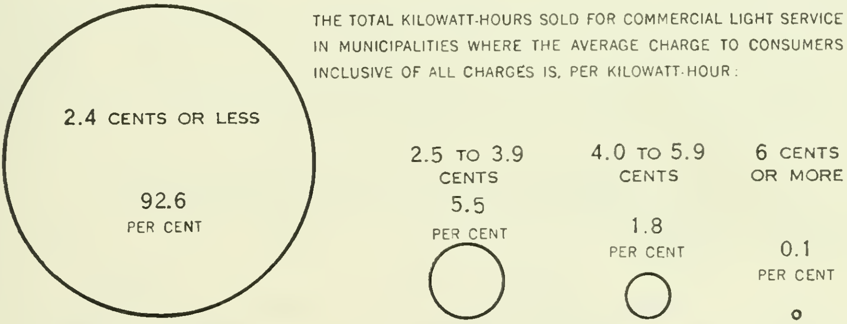
DOMESTIC SERVICE

THE AREAS OF THE CIRCLES REPRESENT PROPORTIONATELY THE TOTAL KILOWATT-HOURS SOLD FOR DOMESTIC SERVICE IN MUNICIPALITIES WHERE THE AVERAGE CHARGE TO CONSUMERS INCLUSIVE OF ALL CHARGES IS, PER KILOWATT-HOUR:



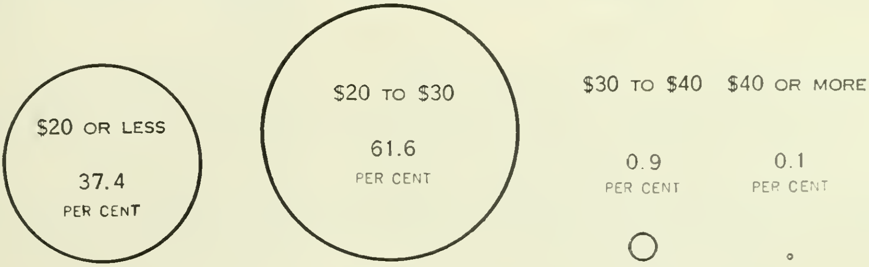
COMMERCIAL LIGHT SERVICE

THE AREAS OF THE CIRCLES REPRESENT PROPORTIONATELY THE TOTAL KILOWATT-HOURS SOLD FOR COMMERCIAL LIGHT SERVICE IN MUNICIPALITIES WHERE THE AVERAGE CHARGE TO CONSUMERS INCLUSIVE OF ALL CHARGES IS, PER KILOWATT-HOUR:



POWER SERVICE SUPPLIED BY MUNICIPALITIES

THE AREAS OF THE CIRCLES REPRESENT PROPORTIONATELY THE AGGREGATE HORSEPOWER SOLD FOR POWER SERVICE IN MUNICIPALITIES WHERE THE AVERAGE CHARGE TO CONSUMERS INCLUSIVE OF ALL CHARGES IS, PER HORSEPOWER PER YEAR.



With respect to domestic service, for example, instances will be observed where two municipalities have identical prices or rates for domestic service, but the average cost per kilowatt-hour to the consumer varies by as much as 100 per cent. Such variations are due principally to differences in the extent of utilization of the service for the operation of electric ranges, water heaters and other appliances, an indication of which is afforded by the statistics of average monthly consumption.

In the case of power service, average unit costs are still less reliable as an indication of the relative rates for service in different municipalities. In the case of hydro-electric power supplied to industries at cost, the rate schedules incorporate charges both for demand and for energy consumption, and thus, although the quantity of power taken by a consumer—that is, the demand as measured in horsepower—is the most important factor affecting costs and revenues, it is not the only one. The number of hours the power is used in the month or year—which, in conjunction with the power, determines the energy consumption, as measured in kilowatt-hours—also affects the costs and revenues. Consequently, in two municipalities charging the same rates for power service, the average cost per horsepower to the consumer will vary in accordance with the consumers' average number of hours' use of the power per month. A greater average energy consumption per horsepower increases the average cost per horsepower and decreases the average cost per kilowatt-hour, to the consumer, and *vice versa.**

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*In view of the fact that the data of Statement "D" have been misinterpreted in the making of certain comparisons as to the cost of electricity in various territories, it is desirable to add a word of caution respecting their significance. Essentially, the average cost or revenue per kilowatt-hour is *not a criterion of rates* even with similar forms of rate schedules and for the same class of service. Particularly is this true when revenues and consumptions of all classes of service, and of all kinds of rate schedules, are indiscriminately lumped together in order to deduce a so-called "average cost or rate per kilowatt-hour" for all services.

In one community rates for each class of service, and the cost to every consumer in each class for any given service and consumption, may be substantially higher than in another community, and yet there may be in the former community, a lower "average revenue per kilowatt-hour."

Example.—Assume sales of electrical energy by two electric utilities, A and B, in each case 10,000,000 kilowatt-hours.

Class of service	Case A Higher rates and lower revenues per kilowatt-hour			Case B Lower rates and higher revenues per kilowatt-hour		
	Energy sales	Rate per kw-hr.	Revenue	Energy sales	Rate per kw-hr.	Revenue
	kw-hr.	cents	$	kw-hr.	cents	$
Residence	1,000,000	4	40,000	3,000,000	3	90,000
Power	9,000,000	1	90,000	7,000,000	0.75	52,500
Total	10,000,000	....	130,000	10,000,000	....	142,500
Average revenue.	1.3 cents per kw-hr.			1.425 cents per kw-hr.		

It will be observed that in Case A *the rates* both for residence and for power service are 33 per cent *higher* than in Case B, but the *average revenue* per kilowatt-hour is nearly 9 per cent less.

In this instance, the explanation lies in the *relative quantities* of energy sold to each class. Service to large power consumers entails a smaller capital investment in distribution lines and equipment and lower operating costs per kilowatt-hour delivered, than does service to domestic and to commercial light consumers, and even where the rates for all classes of service are low, produces a smaller average revenue per kilowatt-hour. Consequently, if one electrical utility as compared with another sells a larger proportion of its energy for power purposes, its "average revenue per kilowatt-hour" may easily be lower than that of the other utility even though its rates for every class of service are substantially higher.

Although the derived statistics of Statement "D" are valueless as a means of comparing the *rates* in one municipality with those in another, they nevertheless fulfil a function in affording a general measure of the *economy of service* to consumers in the co-operating Ontario municipalities—an economy that has resulted primarily from the low rates themselves, and secondarily from the extensive use of the service that has been made possible by the low rates.

Actual bills rendered to typical consumers for similar service under closely comparable circumstances constitute the best basis for making comparisons. In researches respecting rates to consumers therefore the actual *rate schedules* of Statement "E" should be employed, and not statistics of average revenues per kilowatt-hour, as these are valueless for rate comparisons—and particularly so when all classifications of service are combined.

In any consideration of the relative economies of electrical service in the various municipalities—whether based on the actual rates for service as set forth in Statement "E," or on the derived statistics resulting from the rates and other factors as presented in Statement "D"—full account should be taken respectively, of the influence upon costs of such factors as the size of the municipality, the distance from the source of power, the features of the power developments from which service is received, the sizes and concentrations of adjacent markets for electricity, and the sizes and characters of the loads supplied under the various classifications by the local electrical utility to the consumers.

In Statement "D" account has been taken of the sizes of municipalities by grouping them according to whether they are (i) cities—over 10,000 population; (ii) towns of 2,000 to 10,000 population; or (iii) small towns (under 2,000 population), villages, and suburban areas in townships (which are comparable in respect of conditions of supply to the smaller towns and villages). The populations are also given, and the situation of any municipality with respect to transmission lines and power supplies may be ascertained by consulting the map at the end of the Report and the diagrams of stations in Section II.

A feature of the electrical service in Ontario municipalities served by the Hydro-Electric Power Commission is the strikingly large average annual consumption per domestic consumer. There are in all more than 200 Ontario municipalities where the average annual consumption per domestic consumer is in excess of 600 kilowatt-hours. Of the 83 cities and towns with populations of 2,000 or more—in which over 85 per cent of the domestic consumers of the undertaking are served—no less than 62 have an average annual consumption per domestic consumer in excess of 1,000 kilowatt-hours; of these, 26 have an average annual consumption per domestic consumer in excess of 1,500 kilowatt-hours, and 12 have an average annual consumption per domestic consumer in excess of 2,000 kilowatt-hours.

The high average consumption for domestic service results essentially from the policy of the undertaking in providing service "at cost"; the rate schedules designed according to this principle automatically encourage liberal use of the service. Under the standard rate schedules employed by Ontario municipalities, follow-up rates of 1 cent and 1.25 cents (less 10 per cent) are in common use, and as a rule even where the higher initial rates per kilowatt-hour obtain, it is only necessary for the domestic consumer to reach a monthly charge of from $2.00 to $3.00 to obtain the benefit of a follow-up rate of 1.8 cents net. The cost of electric cooking is thus within reach of most of the domestic consumers in Ontario. Electric water heating is also encouraged by low flat rates for continuous heaters and by installation of equipment without capital cost to the consumer.

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group I—CITIES

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw.hr.		kw-hr.	$ c.	cts.
Belleville	E.O.	14,012	79,141.54	5,010,072	3,077	137	2.14	1.6
Brantford	Nia.	30,611	187,064.16	12,061.207	7,478	134	2.08	1.5
Chatham	Nia.	16,140	82,155.22	4,299,918	3,758	95	1.82	1.9
East Windsor	Nia.	14,009	77,289.70	4,049,156	2,981	113	2.20	1.9
Fort William	T.B.	24,709	200,719.69	27,073,689	5,244	430	3.19	0.7
Galt	Nia.	14,057	94,350.55	5,256,506	3,601	122	2.18	1.8
Guelph	Nia.	21,048	110,143.65	7,357,256	5,039	121	1.82	1.5
Hamilton	Nia.	153,504	928,800.72	63,291,430	37,330	141	2.07	1.4
Kingston	E.O.	23,725	115,553.94	7,036,017	5,645	108	1.71	1.6
Kitchener	Nia.	31,252	202,024.06	13,243,708	7,173	154	2.36	1.5
London	Nia.	73,726	518,046.47	42,587,464	16,632	213	2.60	1.2
Niagara Falls	Nia.	18,193	138,473.29	11,132,596	4,366	212	2.64	1.2
Oshawa	E.O.	22,444	160,650.53	6,740,979	5,956	94	2.25	2.4
Ottawa	E.O.	132,551	445,443.36	49,650,833	12,699	326	2.92	0.9
Owen Sound	G.B.	12,894	65,191.80	3,356,175	3,185	88	1.71	1.9
Peterborough	E.O.	22,850	126,242.49	7,601,648	5,353	118	1.97	1.7
Port Arthur	T.B.	20,064	108,984.20	9,183,258	4,318	177	2.10	1.2
St. Catharines	Nia.	26,161	143,939.49	10,977,219	6,414	142	1.87	1.3
St. Thomas	Nia.	16,072	115,912.65	8,830,120	4,060	181	2.38	1.3
Sarnia	Nia.	17,620	108,430.08	5,484,078	4,507	100	2.00	2.0
Stratford	Nia.	18,673	148,616.88	8,874,320	4,298	172	2.88	1.7
Toronto	Nia.	626,674	3,914,023.04	284,280,769	153,764	154	2.12	1.4
Toronto D.C. and 60 cycle†		....	26,834.73	897,264	557	134	4.01	3.0
Welland	Nia.	10,655	50,577.63	3,001,016	2,334	107	1.80	1.6
Windsor	Nia.	61,173	511,282.35	29,555,729	14,975	165	2.84	1.7
Woodstock	Nia.	11,007	73,880.16	5,111,346	2,934	145	2.10	1.4

†This,—with the exception of a relatively small D.C. power load,—is a special service not created by the Hydro-Electric Power Commission but acquired through the purchase of a privately owned company. It does not include Street Railway power.

Group II—TOWNS

Municipality	System	Population	Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Alexandria	E.O.	1,928	6,835.85	131,019	300	36	1.90	5.2
Amherstburg	Nia.	3,128	17,738.01	996,777	585	142	2.53	1.8
Barrie	G.B.	7,686	53,312.22	2,867,988	2,035	117	2.18	1.9
Bowmanville	E.O.	3,626	29,541.77	954,279	1,052	76	2.34	3.1
Brampton	Nia.	5,550	37,832.02	2,564,867	1,386	154	2.17	1.5
Brockville	E.O.	9,654	46,677.66	2,779,245	2,570	91	1.51	1.7
Carleton Place	E.O.	4,272	19,033.09	688,057	957	60	1.66	2.8
Cobourg	E.O.	5,556	31,488.12	1,069,061	1,202	74	2.18	2.9
Collingwood	G.B.	5,536	26,049.30	1,363,586	1,303	87	1.67	1.9
Dundas	Nia.	5,032	20,932.77	1,178,169	1,204	81	1.44	1.8
Dunnville	Nia.	3,632	13,511.72	580,050	800	60	1.40	2.3
Elmira	Nia.	2,672	15,591.71	741,962	509	122	2.55	2.1

"D"

in Ontario Municipalities Served by the Commission and for Power Service during the Year 1934

Population, 10,000 or more

Commercial light service						Power service			Total number of consumers
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horsepower	
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
51,734.65	2,400,495	595	336	7.24	2.2	43,166.35	90	2,241.3	3,762
64,402.72	5,646,822	1,123	419	4.78	1.1	*127,189.62	139	6,399.0	8,740
68,862.83	3,591,016	719	416	7.98	1.9	54,944.65	109	2,808.0	4,586
16,524.78	727,230	272	223	5.06	2.2	38,214.17	30	1,621.2	3,283
63,797.04	2,963,785	869	284	6.12	2.2	65,922.65	94	3,208.0	6,207
41,016.94	2,035,906	488	346	7.00	2.0	86,207.74	116	4,377.0	4,205
50,712.24	3,300,211	768	358	5.50	1.5	117,562.46	139	6,710.0	5,946
361,025.55	27,432,406	5,064	450	5.90	1.3	1,675,192.55	1,262	96,863.8	43,656
76,595.44	3,936,063	864	380	7.39	1.9	105,669.41	144	5,229.4	6,653
99,769.21	5,816,668	975	497	8.53	1.7	240,187.75	265	12,010.9	8,413
192,613.53	13,585,267	2,820	401	5.69	1.4	381,147.03	477	18,987.0	19,929
54,104.91	4,436,471	665	556	6.78	1.2	71,334.33	87	4,086.4	5,118
61,297.29	2,269,110	510	371	10.02	2.7	180,539.76	101	8,188.5	6,567
165,972.08	9,952,717	1,348	615	10.26	1.4	81,911.92	200	5,022.0	14,247
37,669.05	1,855,656	574	270	5.47	2.0	39,406.15	118	2,311.0	3,877
63,611.56	3,233,526	803	346	6.60	2.0	85,362.23	155	4,538.8	6,311
53,537.70	3,656,646	712	428	6.27	1.5	742,149.46	99	33,537.2	5,129
49,059.69	3,412,335	716	397	5.70	1.4	98,942.44	153	6,388.5	7,283
48,424.75	3,202,590	639	418	6.31	1.5	54,334.50	76	3,097.4	4,775
46,211.30	2,512,053	615	340	6.26	1.8	172,385.67	84	6,011.0	5,206
53,007.40	2,340,188	618	316	7.15	2.3	63,430.65	131	2,662.6	5,047
2,857,588.67	124,376,477	24,331	426	9.78	2.3	3,286,096.85	4,291	138,930.0	182,386
126,124.02	3,149,162	950	277	11.06	4.0	427,435.18	851	15,194.0	2,358
28,858.24	1,756,355	446	328	5.39	1.6	64,653.25	83	3,210.0	2,863
227,281.25	12,780,753	2,236	477	8.59	1.8	189,263.73	310	8,603.3	17,521
37,413.41	2,315,060	453	426	6.88	1.6	53,549.44	89	3,361.6	3,476

Note.—The above group of 25 cities utilizes about 80 per cent of the power distributed by the Commission to Ontario municipalities.

*Includes only 25-cycle data.

of Population 2,000 or more

$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
4,014.55	85,319	95	75	3.52	4.7	5,466.99	14	206.5	409
6,431.20	283,780	122	194	4.39	2.3	4,460.76	14	191.9	721
29,040.17	1,360,139	410	276	5.09	2.1	17,491.74	43	986.7	2,488
10,014.12	258,301	173	124	4.82	3.9	46,527.51	34	2,006.4	1,259
16,684.67	917,348	237	322	5.87	1.8	18,229.18	49	1,086.2	1,672
25,305.75	1,415,053	436	270	4.84	1.8	36,139.45	67	1,787.5	3,073
8,983.67	310,715	184	141	4.06	2.9	28,071.38	19	1,139.0	1,160
18,599.60	636,360	262	202	5.92	3.1	26,578.51	44	1,271.5	1,524
9,664.85	416,365	200	173	4.03	2.3	16,899.62	52	983.3	1,555
10,574.92	572,713	199	240	4.43	1.8	19,481.06	39	1,228.7	1,442
11,300.63	522,141	200	217	4.70	2.2	14,611.32	32	825.1	1,032
5,978.35	211,386	114	155	4.37	2.8	5,035.47	22	273.0	645

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group II—TOWNS

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Fergus	Nia.	2,560	15,798.86	685,799	625	91	2.11	2.3
Georgetown	Nia.	2,224	14,474.82	701,537	675	87	1.79	2.1
Goderich	Nia.	4,394	30,584.44	1,376,061	1,170	98	2.18	2.2
Hanover	G.B.	3,039	19,142.23	790,365	716	92	2.23	2.4
Hespeler	Nia.	2,798	16,998.75	726,718	684	89	2.07	2.3
Humberstone	Nia.	2,442	8,593.12	337,341	520	53	1.38	2.5
Huntsville	G.B.	2,563	11,427.81	610,107	589	86	1.62	1.9
Ingersoll	Nia.	5,104	31,840.75	2,017,366	1,282	131	2.07	1.6
Kincardine	G.B.	2,511	14,453.96	425,352	617	57	1.95	3.4
Kingsville	Nia.	2,354	13,602.27	647,665	704	77	1.61	2.1
Leamington	Nia.	5,004	28,104.71	1,549,884	1,342	96	1.75	1.8
Lindsay	E.O.	6,963	38,819.77	1,644,195	1,812	76	1.79	2.4
Listowel	Nia.	2,775	17,505.46	892,224	733	101	1.99	2.0
Long Branch	Nia.	3,550	24,085.71	1,283,720	1,135	94	1.79	1.9
Meaford	G.B.	2,687	11,855.47	438,763	637	59	1.55	2.7
Merritton	Nia.	2,487	11,709.66	706,893	635	93	1.53	1.6
Midland	G.B.	6,925	34,852.11	2,237,246	1,589	117	1.83	1.6
Mimico	Nia.	6,696	56,928.27	3,787,818	1,769	178	2.68	1.5
Napanee	E.O.	2,827	26,408.56	1,158,076	765	126	2.88	2.3
New Toronto	Nia.	7,484	34,857.29	2,145,768	1,488	120	1.79	1.6
Orangeville	G.B.	2,785	15,287.50	611,485	669	76	1.90	2.5
Paris	Nia.	4,297	23,530.97	1,455,546	1,063	114	1.85	1.6
Penetanguishene	G.B.	4,352	12,235.60	489,159	609	67	1.67	2.5
Perth	E.O.	4,052	23,494.77	1,236,234	943	109	2.08	1.9
Petrolia	Nia.	2,715	11,888.16	466,175	696	56	1.42	2.5
Picton	E.O.	3,313	22,534.56	1,169,629	991	98	1.90	1.9
Port Colborne	Nia.	5,417	29,269.73	1,359,855	1,305	86	1.86	2.1
Port Hope	E.O.	4,520	29,702.71	1,078,546	1,207	74	2.05	2.3
Prescott	E.O.	3,083	16,061.63	1,043,850	660	132	2.03	1.5
Preston	Nia.	6,189	38,287.60	2,049,215	1,561	101	2.04	1.9
Riverside	Nia.	4,975	37,310.96	1,768,230	1,088	135	2.86	2.1
St. Marys	Nia.	4,023	29,587.34	1,350,946	1,034	109	2.38	2.2
Sandwich	Nia.	10,559	87,689.76	5,043,211	2,457	171	2.97	1.7
Simcoe	Nia.	5,174	21,450.54	1,125,114	1,207	77	1.48	1.9
Smiths Falls	E.O.	7,502	42,734.01	1,880,038	1,693	93	2.10	2.3
Strathroy	Nia.	2,887	20,032.06	1,072,554	809	110	2.06	1.9
Tecumseh	Nia.	2,423	13,661.18	444,470	504	73	2.19	3.0
Thorold	Nia.	4,945	18,646.70	1,052,921	1,166	75	1.33	1.7
Tillsonburg	Nia.	3,380	15,509.18	818,990	905	75	1.43	1.9
Trenton	E.O.	6,288	29,554.98	1,113,533	1,259	74	1.79	2.7
Walkerton	G.B.	2,370	15,025.75	597,543	548	91	2.29	2.5
Walkerville	Nia.	10,458	105,974 52	7,053,810	2,522	233	3.50	1.5
Wallaceburg	Nia.	4,457	19,094.33	839,189	1,040	67	1.53	2.3
Waterloo	Nia.	8,714	61,882.58	4,054,926	1,868	181	2.76	1.5
Weston	Nia.	4,828	42,202.72	3,534,546	1,256	235	2.80	1.2
Whitby	E.O.	5,297	19,879.51	1,060,436	825	107	2.01	1.9

"D"—Continued

in Ontario Municipalities Served by the Commission and for Power Service during the Year 1934 of Population, 2,000 or more

Commercial light service						Power service			
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horse-power	Total number of consumers
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
6,554.98	201,247	120	140	4.55	3.3	11,654.46	15	415.6	760
6,225.70	294,876	130	189	3.99	2.1	22,585.38	26	980.0	831
13,451.34	536,990	235	190	4.77	2.5	15,800.96	20	680.0	1,425
6,936.51	249,169	121	172	4.78	2.8	18,931.32	20	688.4	857
5,274.25	216,646	108	167	4.07	2.4	35,555.03	27	1,591.0	819
3,155.55	183,096	65	234	4.00	1.8	3,454.42	5	104.9	590
7,860.94	392,032	124	263	5.28	2.0	13,624.17	12	803.7	725
14,686.28	805,894	234	287	5.23	1.8	27,852.74	44	1,269.2	1,560
7,117.59	210,773	121	145	4.91	3.4	12,287.64	20	521.7	758
6,205.86	245,859	172	119	3.01	2.5	4,529.26	12	192.4	888
14,994.60	735,824	252	243	4.96	2.0	17,237.63	28	780.5	1,622
22,789.74	1,005,639	329	255	5.77	2.3	29,584.35	77	1,506.4	2,218
8,092.05	341,967	149	191	4.53	2.4	12,572.34	20	535.0	902
5,167.29	272,643	100	227	4.31	1.9	2,030.41	5	89.9	1,240
6,719.73	232,001	142	136	3.95	2.9	5,574.88	16	286.5	795
2,175.88	88,280	63	116	2.87	2.4	74,179.37	10	3,459.6	708
13,540.44	709,810	216	274	5.22	1.9	53,237.31	58	3,837.0	1,863
10,048.43	493,025	139	296	6.02	2.0	10,927.71	17	474.0	1,925
13,876.11	438,308	195	187	6.93	3.2	12,922.41	32	574.1	992
13,017.84	791,305	176	375	6.16	1.6	118,134.11	31	4,983.8	1,695
9,448.93	363,375	155	195	5.08	2.6	7,293.67	25	355.3	849
8,417.47	433,315	180	201	3.90	1.9	13,297.80	25	733.2	1,268
4,501.99	146,079	102	119	3.68	3.1	13,494.51	27	578.2	738
15,960.51	566,300	193	244	6.89	2.8	18,263.13	25	806.7	1,161
6,455.77	238,993	166	120	3.24	2.7	22,142.83	57	688.0	919
13,250.39	584,087	206	236	5.36	2.3	8,703.82	36	428.5	1,233
12,496.18	616,082	227	226	4.60	2.0	13,711.00	21	487.3	1,553
12,066.16	391,267	199	164	5.05	3.1	26,219.34	44	1,077.2	1,450
8,269.96	434,927	156	232	4.42	1.9	5,011.69	18	305.3	834
16,122.95	720,056	241	249	5.58	2.2	35,488.09	48	2,033.3	1,850
4,128.74	144,742	50	241	6.88	2.8	9,469.12	8	481.3	1,146
10,308.31	441,173	183	201	4.69	2.3	17,698.17	32	661.6	1,249
15,952.72	782,650	202	323	6.58	2.0	13,311.52	27	719.2	2,686
23,848.73	1,327,935	314	352	6.33	1.8	26,179.20	38	1,018.7	1,559
15,271.34	614,496	263	195	4.84	2.5	22,848.24	48	886.1	2,004
9,765.67	395,625	171	193	4.76	2.4	11,307.83	27	533.0	1,007
3,418.64	113,188	50	188	5.64	3.0	1,492.87	3	69.7	557
6,594.17	379,139	191	165	2.87	1.8	34,308.61	17	1,802.1	1,374
12,131.26	596,265	239	208	4.23	2.0	11,674.47	31	600.0	1,175
18,632.97	665,408	249	223	6.24	2.3	69,034.39	50	2,456.8	1,558
8,269.30	276,012	134	172	5.14	3.0	4,980.15	17	190.0	699
29,693.55	1,374,413	314	364	7.65	2.1	144,910.10	87	6,504.5	2,923
10,407.36	444,687	234	158	3.70	2.3	52,520.02	29	1,644.0	1,303
21,335.54	1,014,554	243	348	7.32	2.1	28,782.11	75	1,773.9	2,186
9,284.20	514,653	176	244	4.40	1.8	36,504.01	29	1,791.8	1,461
10,157.37	410,419	153	224	5.53	2.5	16,305.01	21	651.5	999

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group III—SMALL TOWNS (less than 2,000 population),

NOTE—The power used in the smaller places and rural districts is, and possibly must always be, a relatively small proportion of the power distributed by the Commission. Thus, the power used by the small municipalities in the following group, which includes small towns, villages and certain suburban areas in townships, is less than 10 per cent of the power distributed by the Commission to Ontario municipalities. This relatively small proportion of the total power,

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Acton	Nia.	1,885	10,376.00	574,462	486	98	1.78	1.8
Agincourt	Nia.	P.V.	4,961.90	172,792	142	101	2.91	2.9
Ailsa Craig	Nia.	468	2,672.24	90,053	130	57	1.71	3.0
Alliston	G.B.	1,379	8,598.06	234,890	341	57	2.10	3.7
Alvinston	Nia.	690	4,049.73	56,990	153	31	2.20	7.1
Ancaster Twp.	Ni.	....	8,791.70	430,441	271	132	2.70	2.0
Apple Hill	E.O.	P.V.	1,105.12	17,054	43	33	2.14	6.5
Arkona	Nia.	397	2,709.77	47,022	98	40	2.30	5.8
Arthur	G.B.	1,036	4,532.27	83,484	185	38	2.04	5.4
Athens	E.O.	652	3,575.13	72,301	145	42	2.05	4.9
Aylmer	Nia.	1,987	10,695.03	539,990	644	70	1.38	2.0
Ayr	Nia.	773	5,170.53	216,301	205	88	2.10	2.4
Baden	Nia.	P.V.	3,866.23	196,848	136	121	2.37	2.0
Bath	E.O.	355	1,382.54	31,936	32	100	3.60	4.3
Beachville	Nia.	P.V.	2,814.26	107,880	133	68	1.76	2.6
Beaverton	G.B.	989	6,186.17	260,557	313	69	1.65	2.4
Beeton	G.B.	601	3,702.58	69,113	125	46	2.47	5.4
Belle River	Nia.	719	3,389.23	107,412	198	45	1.43	3.2
Blenheim	Nia.	1,702	8,807.18	368,365	496	62	1.48	2.4
Bloomfield	E.O.	619	2,930.69	93,833	153	51	1.60	3.1
Blyth	Nia.	626	3,857.20	95,913	162	49	1.98	4.0
Bolton	Nia.	553	3,588.00	116,386	163	60	1.83	3.1
Bothwell	Nia.	685	2,875.02	106,640	171	52	1.40	2.7
Bradford	G.B.	1,060	6,521.11	173,486	227	64	2.39	3.8
Brantford Twp.	Nia.	....	19,641.05	914,669	801	95	2.04	2.1
Brechin	G.B.	P.V.	957.73	16,613	44	31	1.81	5.8
Bridgeport	Nia.	P.V.	3,902.06	150,668	119	106	2.73	2.6
Brigden	Nia.	P.V.	2,203.67	49,978	104	40	1.77	4.4
Brighton	E.O.	1,442	10,010.58	216,887	479	39	1.74	4.6
Brussels	Nia.	766	5,221.99	116,938	214	46	2.03	4.5
Burford	Nia.	P.V.	4,060.91	188,590	173	90	1.79	2.2
Burgessville	Nia.	P.V.	1,146.69	31,456	50	53	1.91	3.6
Caledonia	Nia.	1,475	5,350.11	202,983	337	50	1.32	2.6
Campbellville	Nia.	P.V.	1,328.82	26,540	45	49	2.46	5.0
Cannington	G.B.	864	5,228.96	187,051	240	65	1.82	2.8

"D"—Continued

in Ontario Municipalities Served by the Commission and for Power Service during the Year 1934

VILLAGES AND SUBURBAN AREAS

however, exerts upon the economic life of the Province a most beneficial influence. It should further be appreciated that about 35 per cent of these municipalities obtain their power, not from Niagara, but from relatively small water-power developments throughout the Province. The net cost per kilowatt-hour given in the table is the cost inclusive of all charges. Consult also introduction to Statement "D", page 402.

Commercial light service						Power service			
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horsepower	Total number of consumers
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
3,961.88	196,705	87	188	3.80	2.0	23,886.57	16	827.6	589
1,233.46	40,965	28	122	3.67	3.0	1,266.75	3	58.2	173
1,451.96	32,615	37	73	3.27	4.4	1,019.14	2	40.3	169
4,699.85	106,671	112	79	3.50	4.4	2,672.13	14	143.6	467
2,314.51	42,508	51	69	3.78	5.4	542.73	2	20.7	206
1,659.64	68,433	37	154	3.74	2.4	815.86	5	42.0	313
810.93	16,702	21	66	3.22	4.9	279.57	1	9.6	65
1,689.52	36,467	37	82	3.81	4.6	193.84	2	5.0	137
3,718.74	66,471	86	64	3.70	5.6	1,991.60	4	89.1	275
1,570.16	34,011	45	63	2.91	4.6	1,105.89	1	34.7	191
7,216.59	349,240	137	212	4.39	2.1	3,467.97	9	171.0	790
1,769.35	62,310	45	115	3.28	2.8	198.39	3	11.5	253
1,458.83	51,246	34	126	3.58	2.8	5,429.78	3	208.4	173
782.45	13,395	16	70	4.89	5.8	....	......	......	48
667.67	18,521	20	77	2.78	3.6	9,144.46	4	398.6	157
2,247.30	96,652	61	132	3.07	2.3	1,138.88	10	70.5	384
2,562.38	51,155	37	115	5.77	5.0	1,837.31	4	74.2	166
1,424.16	40,603	43	79	2.76	3.5	1,462.41	4	43.0	245
6,390.37	282,081	125	188	4.26	2.3	4,478.07	10	156.2	631
979.18	28,864	28	103	2.91	2.8	1,241.68	6	53.0	187
1,727.93	42,086	49	72	2.94	4.1	997.85	4	40.5	215
917.08	23,578	42	47	1.82	3.9	1,975.02	9	98.0	214
1,268.56	49,902	48	87	2.20	2.5	740.16	5	65.1	224
3,161.58	62,236	65	80	4.05	5.1	2,250.37	8	130.9	300
3,614.82	189,130	46	343	6.55	1.9	3,036.90	5	127.0	852
990.36	20,784	27	64	3.06	4.8	826.19	3	36.0	74
1,126.54	28,439	19	125	4.94	4.0	463.96	5	16.6	143
1,695.15	37,104	43	72	3.28	4.6	1,283.50	5	44.2	152
4,917.65	126,316	98	107	4.28	3.9	2,471.70	11	139.1	588
2,661.82	66,979	66	85	3.36	4.0	681.37	2	25.0	282
964.07	40,841	33	103	2.44	2.4	1,331.08	4	62.0	210
532.21	12,910	16	67	2.77	4.1	....	......	......	66
3,877.30	171,758	88	162	3.67	2.2	2,009.76	6	82.5	431
450.70	11,891	9	110	4.17	3.8	....	......	......	54
2,237.31	69,323	69	84	2.70	3.2	618.71	10	33.9	319

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group III—SMALL TOWNS (less than 2,000 population),

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Cardinal	E.O.	1,395	6,959.24	214,713	308	58	1.88	3.2
Cayuga	Nia.	693	3,428.46	87,125	124	58	2.14	3.9
Chatsworth	G.B.	308	1,692.75	35,065	79	37	1.79	4.8
Chesley	G.B.	1,762	8,984.38	341,882	422	68	1.77	2.6
Chesterville	E.O.	970	5,427.10	234,142	232	84	1.95	2.3
Chippawa	Nia.	1,051	7,216.68	441,942	319	116	1.90	1.6
Clifford	Nia.	440	2,437.55	48,580	101	40	2.01	5.0
Clinton	Nia.	1,848	11,791.74	493,621	511	81	1.92	2.4
Colborne	E.O.	1,040	5,197.09	111,138	235	39	1.84	4.7
Coldwater	G.B.	632	2,852.44	129,177	135	80	1.76	2.2
Comber	Nia.	P.V.	2,175.65	58,350	95	51	1.91	3.7
Cookstown	G.B.	P.V.	2,384.91	37,738	99	32	2.01	6.3
Cottam	Nia.	P.V.	2,501.42	64,121	103	52	2.02	3.9
Courtright	Nia.	338	1,620.01	24,622	62	33	2.18	6.6
Creemore	G.B.	620	3,733.87	73,293	145	42	2.15	5.1
Dashwood	Nia.	P.V.	1,422.82	35,686	66	45	1.80	4.0
Delaware	Nia.	P.V.	1,360.24	60,035	52	96	2.18	2.3
Deseronto	E.O.	1,399	6,183.07	136,117	278	41	1.85	4.5
Dorchester	Nia.	P.V.	2,305.63	93,977	126	62	1.52	2.5
Drayton	Nia.	559	3,136.66	103,112	153	56	1.71	3.0
Dresden	Nia.	1,469	6,355.74	225,988	361	52	1.47	2.8
Drumbo	Nia.	P.V.	2,072.51	70,797	82	72	2.11	3.0
Dublin	Nia.	P.V.	1,321.41	21,795	41	44	2.69	6.1
Dundalk	G.B.	650	2,783.62	86,386	166	43	1.40	3.2
Durham	G.B.	1,776	6,631.32	276,714	422	55	1.31	2.4
Dutton	Nia.	798	3,363.41	149,056	207	60	1.35	2.3
East York Twp.	Nia.	....	176,947.44	8,913,290	9,170	81	1.61	2.0
Elmvale	G.B.	P.V.	2,805.65	91,744	156	49	1.50	3.1
Elmwood	G.B.	P.V.	1,174.92	19,932	59	28	1.66	5.9
Elora	Nia.	1,152	7,206.38	294,013	309	79	1.94	2.5
Embro	Nia.	437	2,742.64	100,860	101	83	2.26	2.7
Erieau	Nia.	273	3,960.98	90,987	162	47	2.04	4.4
Erie Beach	Nia.	....	1,583.84	18,926	68	23	1.94	8.4
Essex	Nia.	1,786	7,364.59	325,830	431	63	1.42	2.3
Etobicoke Twp.	Nia.	....	104,459.43	7,167,296	3,327	180	2.62	1.5
Exeter	Nia.	1,606	11,436.89	466,372	442	88	2.16	2.4
Finch	E.O.	393	1,821.05	46,759	80	49	1.90	3.9
Flesherton	G.B.	488	2,630.38	72,882	139	44	1.58	3.6
Fonthill	Nia.	872	4,992.13	189,967	214	74	1.94	2.6
Forest	Nia.	1,487	10,818.08	396,850	461	72	1.96	2.7

“D”—Continued

in Ontario Municipalities Served by the Commission and for Power Service during the Year .934

VILLAGES AND SUBURBAN AREAS

Commercial light service						Power service			Total number of consumers
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horsepower	
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
1,875.06	60,484	53	95	2.95	3.1	536.64	2	14.9	363
2,869.64	66,095	56	98	4.27	4.3	1,331.20	4	38.6	184
1,367.56	23,627	33	60	3.45	5.8	....	....	....	112
4,079.24	156,512	98	133	3.47	2.6	9,420.05	19	352.0	539
2,389.97	77,374	68	95	2.93	3.1	1,361.85	3	55.0	303
1,199.38	51,175	34	125	2.94	2.3	1,123.29	5	36.5	358
1,527.35	32,303	38	71	3.35	4.7	128.59	1	5.0	140
5,966.63	208,194	128	133	3.88	2.9	5,555.50	14	220.3	653
3,563.94	84,296	82	103	3.62	4.2	700.55	3	32.0	320
1,761.53	58,266	53	92	2.77	3.0	5,363.65	3	194.2	191
2,307.06	69,369	49	118	3.92	3.3	3,329.62	3	89.4	147
1,099.95	16,743	28	50	3.27	6.6	780.27	4	42.5	131
1,198.59	38,640	25	129	4.00	3.1	324.85	1	15.0	129
924.35	14,701	23	53	3.35	6.3	851.05	2	14.9	87
2,150.81	41,257	52	66	3.45	5.2	854.17	2	48.7	199
876.92	16,120	26	52	2.81	5.4	....	....	....	92
565.31	21,119	18	98	2.62	2.7	....	....	....	70
2,265.64	43,583	63	58	3.00	5.2	1,771.32	14	74.0	355
842.29	30,647	29	88	2.42	2.7	533.43	2	26.1	157
1,957.82	50,113	64	66	2.55	3.9	999.34	4	47.5	221
5,186.24	198,828	113	138	3.82	2.6	5,028.05	10	196.0	484
930.26	26,170	26	84	2.98	3.5	592.25	1	20.8	109
855.49	13,840	24	48	2.97	6.2	405.34	2	17.8	67
2,257.59	66,714	67	83	2.81	3.4	2,189.91	4	121.6	237
4,294.98	152,882	112	114	3.20	2.8	6,474.69	10	285.8	544
2,435.84	90,685	71	106	2.86	2.7	3,395.33	7	144.7	285
24,651.03	1,336,467	405	275	5.07	1.8	32,269.01	44	1,357.5	9,619
1,684.05	57,027	57	83	2.46	3.0	2,911.08	8	131.1	221
652.37	12,955	19	57	2.86	5.0	1,234.95	1	33.5	79
3,536.74	112.612	76	123	3.88	3.1	2,832.25	2	122.1	387
1,616.16	40,927	47	72	2.86	4.0	1,218.33	1	36.6	149
1,219.60	27,544	11	209	9.24	4.4	944.65	4	33.7	177
297.50	5,551	3	154	8.26	5.4	....	....	....	71
4,299.43	179,861	114	131	3.14	2.4	5,989.60	17	281.6	562
15,829.23	844,752	205	343	7.72	1.9	18,516.91	24	813.5	3,556
5,098.61	152,020	110	115	3.86	3.4	4,326.16	9	198.6	561
1,354.08	31,471	32	82	3.53	4.3	769.79	1	17.9	113
1,886.48	46,979	51	77	3.08	4.0	192.89	2	11.0	192
1,016.41	44,764	32	117	2.64	2.3	559.62	4	19.5	250
5,342.83	157,214	126	104	3.53	3.4	4,998.23	22	195.6	609

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group III—SMALL TOWNS (less than 2,000 population),

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Glencoe	Nia.	827	5,488.13	173,609	218	66	2.10	3.2
Grand Valley	G.B.	589	3,495.14	75,240	156	40	1.87	4.6
Granton	Nia.	P.V.	1,924.52	78,673	81	81	1.98	2.4
Gravenhurst	G.B.	1,956	9,438.44	625,979	460	113	1.71	1.5
Hagersville	Nia.	1,355	5,010.61	237,911	334	59	1.25	2.1
Harriston	Nia.	1,321	7,874.26	234,557	343	57	1.91	3.4
Harrow	Nia.	928	7,395.41	393,375	257	128	2.40	1.9
Hastings	E.O.	753	4,031.38	89,662	189	40	1.78	4.4
Havelock	E.O.	1,249	5,960.19	129,481	281	38	1.77	4.7
Hensall	Nia.	697	4,173.05	145,291	182	67	1.91	2.9
Highgate	Nia.	343	1,837.56	50,498	95	44	1.61	3.6
Holstein	G.B.	P.V.	1,304.56	11,017	53	17	2.05	11.8
Jarvis	Nia.	531	2,420.67	59,735	121	41	1.66	4.0
Kemptville	E.O.	1,227	7,108.96	227,197	319	59	1.85	3.1
Kirkfield	G.B.	P.V.	759.85	11,469	31	31	2.04	6.6
Lakefield	E.O.	1,387	6,324.64	222,423	312	59	1.69	2.8
Lambeth	Nia.	P.V.	3,523.95	162,195	110	123	2.67	2.2
Lanark	E.O.	623	2,879.49	64,197	154	35	1.56	4.5
Lancaster	E.O.	575	2,019.15	28,765	84	29	2.00	7.0
La Salle	Nia.	600	5,515.53	233,304	151	129	3.04	2.4
London Twp.	Nia.		11,307.27	708,480	335	176	2.81	1.6
Lucan	Nia.	528	4,584.29	185,550	174	89	2.20	2.5
Lucknow	G.B.	964	6,700.39	182,707	271	56	2.06	3.7
Lynden	Nia.	P.V.	1,984.32	63,824	82	65	2.02	3.1
Madoc	E.O.	1,067	4,884.31	121,718	280	36	1.45	4.0
Markdale	G.B.	792	3,724.51	133,716	196	57	1.58	2.8
Markham	Nia.	1,060	6,961.31	259,367	271	80	2.24	2.7
Marmora	E.O.	1,015	3,912.68	78,284	208	31	1.57	5.0
Martintown	E.O.	P.V.	829.16	13,078	36	30	1.92	6.3
Maxville	E.O.	725	3,225.77	50,732	135	31	1.99	6.3
Merlin	Nia.	P.V.	2,183.15	52,214	106	41	1.72	4.2
Mildmay	G.B.	714	2,980.43	63,064	147	36	1.69	4.7
Milton	Nia.	1,804	11,342.00	526,306	438	100	2.16	2.2
Milverton	Nia.	1,002	5,629.79	260,006	228	95	2.06	2.2
Mitchell	Nia.	1,497	10,772.48	536,555	460	97	1.95	2.0
Moorefield	Nia.	P.V.	1,159.27	23,068	58	33	1.67	5.0
Mt. Brydges	Nia.	P.V.	2,755.72	105,937	140	63	1.64	2.6
Mt. Forest	G.B.	1,839	7,630.71	357,980	458	65	1.39	2.1
Neustadt	G.B.	458	2,220.52	23,931	92	23	2.01	9.3
Newbury	Nia.	256	1,197.60	26,149	63	35	1.58	4.6

"D"—Continued

in Ontario Municipalities Served by the Commission and for Power Service during the Year 1934

VILLAGES AND SUBURBAN AREAS

Commercial light service						Power service			
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horse-power	Total number of consumers
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
3,310.81	85,728	82	87	3.36	3.9	3,051.32	6	100.0	306
1,828.42	35,602	48	62	3.17	5.1	1,753.93	4	74.2	208
1,066.06	35,674	34	87	2.61	3.0	709.56	1	37.3	116
5,842.96	455,943	107	355	4.55	1.3	8,711.06	13	422.3	580
4,620.29	272,705	108	210	3.51	1.7	12,439.59	16	590.4	458
4,836.50	132,250	105	105	3.84	3.7	5,702.48	13	228.3	461
3,510.64	129,129	74	145	3.95	2.7	3,778.91	3	143.4	334
1,582.54	23,894	53	38	2.49	6.6	677.57	5	25.5	247
2,194.92	42,884	60	59	3.05	5.2	2,603.14	3	92.4	344
1,717.39	47,326	47	84	3.05	3.6	2,622.51	14	116.8	243
960.87	23,167	38	51	2.11	4.1	1,103.53	6	55.2	139
612.16	5,464	20	23	2.55	11.2	27.30	....	....	73
1,820.01	51,046	44	96	3.44	3.5	3,889.08	4	123.7	169
4,520.83	161,339	78	172	4.83	2.8	4,121.02	7	160.8	404
1,160.68	21,915	20	91	4.84	5.3	....	....	....	51
3,490.74	146,323	68	179	4.28	2.4	1,444.28	5	103.5	385
1,455.73	45,997	25	153	4.85	3.2	569.90	1	27.5	136
1,251.36	34,908	39	75	2.67	3.6	....	....	....	193
1,565.75	23,275	34	57	3.84	6.7	....	....	....	118
1,373.41	55,802	17	274	6.73	2.5	1,995.15	4	72.6	172
2,479.86	120,907	24	420	8.61	2.0	1,707.94	5	69.0	364
1,673.81	50,682	47	90	2.97	3.3	394.28	6	22.5	227
3,071.61	73,749	88	70	2.91	4.2	3,572.98	6	129.5	365
710.34	33,905	21	135	2.82	2.1	791.91	1	36.6	104
3,536.32	111,675	92	101	3.20	3.2	1,828.65	6	118.7	378
2,611.63	78,491	72	91	3.02	3.3	949.79	9	65.9	277
2,760.91	93,122	66	118	3.49	3.0	2,914.00	10	112.7	347
1,789.38	48,542	49	83	3.04	3.7	165.76	2	12.0	259
917.32	16,489	20	69	3.82	5.6	....	....	....	56
2,523.20	42,445	48	74	4.38	5.9	....	....	....	183
1,512.98	36,618	43	71	2.93	4.1	935.76	1	27.6	150
2,010.99	34,531	47	61	3.57	5.8	775.68	2	24.3	196
5,422.01	233,755	105	186	4.30	2.3	10,572.03	21	426.7	564
2,931.18	86,484	72	100	3.39	3.4	2,856.82	7	167.9	307
4,305.49	178,305	113	131	3.18	2.4	4,684.80	25	251.6	598
617.87	10,373	22	39	2.34	6.0	1,069.57	2	42.0	82
864.47	29,478	32	76	2.25	2.9	883.68	3	30.6	175
5,318.39	211,520	143	123	3.10	2.5	4,330.18	13	259.5	614
1,411.70	19,576	31	53	3.79	7.2	42.21	1	2.0	124
793.88	15,171	23	55	2.88	5.2	723.89	2	36.6	88

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers For Domestic Service, for Commercial Light Service

Group III—SMALL TOWNS (less than 2,000 population),

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
New Hamburg	Nia.	1,457	10,256.68	465,206	337	115	2.54	2.2
Niagara-on-the Lake	Nia.	1,614	14,141.76	922,818	466	165	2.53	1.5
Nipigon	T.B.	P.V.	2,593.14	79,145	147	45	1.47	3.3
North York Twp.	Nia.	......	103,317.07	4,856,518	2,920	139	2.95	2.1
Norwich	Nia.	1,196	8,205.54	415,447	346	100	1.81	2.0
Norwood	E.O.	868	4,864.87	125,193	213	49	1.90	4.0
Oil Springs	Nia.	462	1,620.31	44,217	74	50	1.82	3.7
Omemee	E.O.	551	2,204.87	51,814	128	34	1.44	4.2
Otterville	Nia.	P.V.	2,170.36	80,797	111	61	1.63	2.7
Paisley	G.B.	713	3,971.68	73,369	175	35	1.89	5.4
Palmerston	Nia.	1,600	10,176.68	427,299	399	89	2.13	2.4
Parkhill	Nia.	1,021	4,835.48	107,530	240	37	1.68	4.5
Plattsville	Nia.	P.V.	2,500.67	60,016	95	53	2.19	4.2
Point Edward	Nia.	1,336	5,620.87	211,110	299	59	1.57	2.7
Port Credit	Nia.	1,650	13,605.90	912,420	398	191	2.86	1.5
Port Dalhousie	Nia.	1,495	13,663.90	870,383	560	130	2.03	1.5
Port Dover	Nia.	1,692	7,655.78	258,973	496	43	1.28	2.9
Port Elgin	G.B.	1,351	7,696.56	246,854	365	56	1.76	3.1
Port McNicoll	G.B.	880	3,312.27	100,952	195	43	1.42	3.3
Port Perry	G.B.	1,104	6,817.87	232,357	310	62	1.83	2.9
Port Rowan	Nia.	692	3,593.62	56,134	101	46	2.94	6.4
Port Stanley	Nia.	742	13,455.53	572,109	606	79	1.85	2.3
Priceville	G.B.	P.V.	560.73	5,872	27	18	1.73	9.6
Princeton	Nia.	P.V.	2,068.19	60,474	76	66	2.27	3.4
Queenston	Nia.	P.V.	2,945.67	152,593	70	181	3.50	1.9
Richmond	E.O.	413	1,843.49	48,024	55	73	2.79	3.8
Richmond Hill	Nia.	1,299	7,453.62	274,690	329	70	1.89	2.7
Ridgetown	Nia.	1,914	9,251.64	439,389	558	66	1.38	2.1
Ripley	G.B.	465	3,313.20	53,812	120	37	2.30	6.2
Rockwood	Nia.	P.V.	3,114.32	126,657	148	71	1.75	2.5
Rodney	Nia.	748	3,394.73	111,465	202	46	1.40	3.0
Rosseau	G.B.	286	3,267.90	50,378	62	68	4.39	6.5
Russell	E.O.	P.V.	2,622.95	47,013	105	37	2.08	5.6
St. Clair Beach	Nia.	81	1,848.63	65,927	39	141	4.00	2.8
St. George	Nia.	P.V.	2,949.80	127,656	132	81	1.86	2.3
St. Jacobs	Nia.	P.V.	3,942.31	191,314	113	141	2.91	2.1
Scarboro Twp.	Nia.	......	95,233.61	4,698,700	4,483	87	1.77	2.0
Seaforth	Nia.	1,697	10,688.44	496,148	474	87	1.88	2.2
Shelburne	G.B.	1,121	5,485.48	197,368	287	57	1.59	2.8
Southampton	G.B.	1,356	7,945.62	255,293	396	54	1.67	3.1

"D"—Continued

in Ontario Municipalities Served by the Commission and for Power Service during the year 1934

VILLAGES AND SUBURBAN AREAS

Commercial light service						Power service			
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horsepower	Total number of consumers
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
4,049.52	130,532	90	121	3.75	3.1	4,822.52	13	220.1	440
3,566.41	198,056	79	209	3.76	1.8	2,750.06	11	98.9	556
1,793.53	58,541	37	133	4.04	3.1	940.11	2	40.3	186
16,424.74	548,476	240	190	5.70	3.0	32,398.63	38	1,000.6	3,198
3,270.25	125,987	89	118	3.06	2.6	2,101.35	6	100.0	441
2,482.65	53,990	64	70	3.23	4.6	652.17	2	23.8	279
1,299.15	36,310	29	104	3.73	3.6	7,499.30	30	197.1	133
1,330.43	34,034	46	62	2.41	3.9	1,543.36	6	67.4	180
1,652.03	49,511	44	94	3.13	3.3	120.78	2	6.0	157
2,728.17	72,527	53	114	4.29	3.8	1,208.53	4	31.9	232
5,051.24	211,912	95	186	4.43	2.4	6,793.93	10	294.3	504
3,094.20	71,330	79	75	3.26	4.3	753.41	3	29.0	322
1,067.27	24,438	25	81	3.56	4.4	651.88	1	17.2	121
1,855.65	58,572	46	106	3.36	3.2	22,513.59	10	854.0	355
5,172.31	235,720	75	262	5.75	2.2	2,731.62	6	132.8	479
2,129.27	103,703	48	180	3.70	2.0	4,869.74	13	265.1	621
4,253.13	145,429	128	94	2.73	2.9	4,745.95	11	211.3	635
3,962.43	115,511	84	115	3.94	3.4	4,129.08	9	208.8	458
835.07	22,029	32	57	2.17	3.8	....	......	......	227
2,864.18	76,940	79	81	3.02	3.7	2,484.84	9	103.9	398
1,620.70	25,948	31	69	4.35	6.3	83.71	1	3.5	133
3,749.74	117,270	97	101	3.22	3.2	4,159.39	9	155.0	712
373.66	6,691	11	51	2.83	5.6	....	....	....	38
728.69	21,614	20	90	3.04	3.4	3,028.37	3	81.3	99
912.69	36,355	11	275	6.91	2.5	....	....	....	81
1,518.24	37,423	25	125	5.06	4.1	....	....	....	80
3,772.41	167,456	65	215	4.84	2.3	2,516.04	17	139.7	411
4,947.97	213,637	147	121	2.80	2.3	4,009.03	19	215.4	724
1,818.19	26,321	50	44	3.03	6.9	....	......	..	170
1,017.28	40,098	35	95	2.42	2.5	236.51	2	10.4	185
2,251.08	65,298	74	74	2.54	3.4	1,980.35	7	83.7	283
969.41	9,897	20	41	4.04	9.8	....	....		82
1,134.81	25,436	34	62	2.78	4.4	....	....		139
1,425.73	37,803	5	630	23.76	3.8	262.14	1	8.8	45
1,099.16	37,940	37	85	2.48	2.9	2,059.66	3	76.4	172
1,227.43	33,109	28	99	3.65	3.7	1,145.51	6	60.8	147
20,281.81	923,472	361	213	4.68	2.2	22,207.63	36	826.9	4,880
5,223.45	239,551	117	171	3.72	2.2	4,870.76	15	254.6	606
3,530.53	104,270	85	102	3.46	3.4	2,739.15	14	162.1	386
3,376.56	101,523	81	104	3.47	3.3	4,362.40	12	167.0	489

STATEMENT

Statistics Relating to the Supply of Electrical Energy to Consumers
For Domestic Service, for Commercial Light Service

Group III—SMALL TOWNS (less than 2,000 population),

Municipality	System	Population	Domestic service					
			Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.
			$ c.	kw-hr.		kw-hr.	$ c.	cts.
Springfield	Nia.	372	1,775.06	56,736	97	49	1.53	3.1
Stamford Twp.	Nia.	....	54,149.44	3,477,117	1,668	173	2.70	1.6
Stayner	G.B.	995	4,425.38	196,641	251	65	1.47	2.3
Stirling	E.O.	949	5,454.87	299,242	277	90	1.64	1.8
Stouffville	Nia.	1,174	7,017.62	264,484	339	65	1.73	2.7
Sunderland	G.B.	P.V.	2,331.70	44,901	112	33	1.73	5.2
Sutton	Nia.	806	7,298.86	190,465	399	40	1.52	3.8
Tara	G.B.	505	2,701.95	58,085	140	35	1.61	4.7
Tavistock	Nia.	1,050	6,973.88	357,209	256	116	2.27	2.0
Teeswater	G.B.	796	4,475.34	100.766	196	43	1.90	4.4
Thamesford	Nia.	P.V.	2,495.30	112,920	124	76	1.67	2.2
Thamesville	Nia.	763	3,938.61	150,908	217	58	1.51	2.6
Thedford	Nia.	572	3,032.53	53,903	131	34	1.93	5.6
Thorndale	Nia.	P.V.	1,391.02	35,340	60	49	1.93	3.9
Thornton	G.B.	P.V.	1,432.28	17,169	56	26	2.13	8.3
Tilbury	Nia.	1,897	6,979.95	309,504	423	61	1.38	2.3
Toronto Twp.	Nia.	....	60,681.43	3,353,582	1,969	142	2.57	1.8
Tottenham	G.B.	556	3,270.65	61,406	121	42	2.25	5.3
Trafalgar Twp. No. 1	Nia.	....	13,991.77	588,819	266	184	4.38	2.4
Trafalgar Twp. No. 2	Nia.	....	5,818.71	207,295	148	117	3.28	2.8
Tweed	E.O.	1,287	6,177.30	128,945	249	43	2.07	4.8
Uxbridge	G.B.	1,512	8,265.16	283,910	360	66	1.91	2.9
Victoria Harbor	G.B.	1,126	2,920.70	85,021	172	41	1.42	3.4
Wardsville	Nia.	240	1,105.32	22,458	52	36	1.77	4.9
Warkworth	E.O.	P.V.	2,250.85	40,321	117	29	1.60	5.6
Waterdown	Nia.	919	5,682.98	286,642	227	105	2.08	1.9
Waterford	Nia.	1,213	6,537.53	347,100	315	91	1.64	1.8
Watford	Nia.	941	6,272.18	190,450	272	58	1.92	3.3
Waubaushene	G.B.	P.V.	2,315.90	104,659	137	64	1.41	2.2
Wellesley	Nia.	P.V.	2,838.42	78,942	127	52	1.86	3.6
Wellington	E.O.	920	4,742.66	194,537	286	57	1.38	2.4
West Lorne	Nia.	776	2,957.12	95,283	189	42	1.30	3.1
Westport	E.O.	738	3,120.69	52,761	90	49	2.89	5.9
Wheatley	Nia.	754	3,905.06	117,613	169	58	1.93	3.3
Wiarton	G.B.	1,815	8,263.00	173,409	352	41	1.96	4.8
Williamsburg	E.O.	P.V.	3,546.52	176,177	98	150	3.02	2.0
Winchester	E.O.	930	6,291.18	308,455	278	92	1.89	2.0
Windermere	G.B.	130	2,540.07	35,288	51	58	4.15	7.2
Wingham	G.B.	1,923	12,831.04	435,743	504	72	2.12	2.9
Woodbridge	Nia.	740	6,305.43	271,821	254	89	2.07	2.3
Woodville	G.B.	420	2,266.10	59,571	112	44	1.69	3.8
Wyoming	Nia.	505	2,709.73	58,517	128	38	1.76	4.6
Zurich	Nia.	P.V.	3,113.96	76,204	124	51	2.09	4.1

"D"—Concluded

in Ontario Municipalities Served by the Commission and for Power Service during the Year 1934

VILLAGES AND SUBURBAN AREAS

Commercial light service						Power service			
Revenue	Consumption	Number of consumers	Average monthly consumption	Average monthly bill	Net cost per kw-hr.	Revenue	Number of consumers	Average monthly horsepower	Total number of consumers
$ c.	kw-hr.		kw-hr.	$ c.	cents	$ c.			
734.68	17,164	30	48	2.04	4.3	1,262.21	4	44.7	131
6,926.87	435,581	93	390	5.85	1.5	8,988.60	13	419.3	1,774
2,750.32	99,159	82	101	2.80	2.8	2,337.22	11	157.1	344
3,476.71	134,240	86	130	3.37	2.6	1,850.39	9	76.9	372
2,824.27	74,481	86	72	2.74	3.8	860.47	5	39.8	430
1,760.97	37,629	39	80	3.76	4.7	60.67	1	5.0	152
2,878.02	76,829	79	81	3.04	3.7	1,004.28	4	27.8	482
1,373.63	42,514	37	96	3.09	3.2	751.17	4	34.1	181
2,078.20	81,008	72	95	2.41	2.6	9,740.21	7	363.4	335
2,514.88	51,722	60	71	3.49	4.9	1,186.74	6	51.8	262
1,410.50	61,987	41	126	2.85	2.3	3,548.72	7	111.0	172
2,596.58	91,808	70	109	3.09	2.8	2,100.74	7	101.2	295
1,978.94	30,176	39	56	4.23	6.6	1,401.97	3	38.4	173
909.59	21,784	23	79	3.30	4.2	252.97	1	5.4	84
567.49	8,636	17	42	2.78	6.6	299.37	2	15.5	75
7,364.40	345,993	134	215	4.58	2.1	7,214.06	14	464.4	571
13,976.92	617,476	183	281	6.37	2.3	8,086.71	23	389.1	2,175
1,954.92	25,544	52	41	3.13	7.7	423.66	5	15.0	178
663.51	17,486	2	729	27.64	3.8	533.41	9	26.2	277
......	......	......	......	......	......	......	......	......	148
4,551.82	71,309	92	65	4.12	6.4	2,866.90	12	118.6	353
3,295.58	92,785	83	83	2.95	3.6	968.73	10	65.0	463
839.58	29,869	27	92	2.59	2.8	171.93	2	6.0	201
1,181.89	16,650	22	63	4.48	7.1	......	......	......	74
1,543.53	31,935	38	70	3.39	4.8	......	......	......	155
1,774.40	95,914	36	222	4.10	1.8	2,003.95	6	86.8	269
1,625.85	93,715	74	105	1.79	1.7	4,619.58	10	238.8	399
3,341.42	94,387	73	108	4.36	3.5	2,705.97	5	96.0	350
715.54	29,370	24	102	2.50	2.4	512.81	3	17.0	164
1,534.96	37,334	45	69	2.84	4.1	1,796.02	5	62.3	177
1,930.48	61,707	63	82	2.55	3.1	1,922.92	6	76.5	355
1,392.58	48,860	48	85	2.42	2.9	833.03	3	34.0	240
2,625.60	36,818	45	68	4.86	7.1	......	......	......	135
2,598.56	68,365	60	95	3.61	3.8	1,692.22	3	69.3	232
5,775.95	126,744	117	90	4.11	4.6	3,785.34	14	128.4	483
6,544.69	266,980	62	359	8.80	2.5	181.87	1	13.6	161
3,372.12	129,444	68	159	4.13	2.6	1,604.58	2	41.1	348
1,172.79	17,980	10	150	9.77	6.5	......	......	......	61
6,946.66	199,047	146	114	3.96	3.5	9,979.51	23	369.4	673
1,799.56	62,736	50	105	3.00	2.9	4,581.35	5	209.4	309
1,131.46	23,990	31	64	3.04	4.7	704.41	2	35.0	145
1,662.31	38,415	49	65	2.83	4.3	87.71	1	10.0	178
1,910.73	37,008	46	67	3.46	5.2	......	......	......	170

STATEMENT "E"

Cost of Power to Municipalities and Rates to Consumers for Domestic Service—Commercial Light Service—Power Service in Urban Municipalities Served by The Hydro-Electric Power Commission for the Year 1934

In Statement "E" are presented the rate schedules applicable to consumers for domestic service, for commercial light service and for power service in each of the co-operating municipalities receiving service at cost through the Hydro-Electric Power Commission.* The cost per horsepower of the power supplied at wholesale by the Commission to the municipality, an important factor in determining rates to consumers, is also stated.

Cost of Power to Municipalities

The figures in the first column represent the total cost for the year of the power supplied by the Commission to the municipality, divided by the number of horsepower supplied. Details respecting these costs are given in the "Cost of Power" tables relating to the several systems, as presented in Section IX, and an explanation of the items making up the cost of power is given in the introduction to that Section.

Rates to Consumers

The Power Commission Act stipulates that "The rates chargeable by any municipal corporation generating or receiving and distributing electrical power or energy shall at all times be subject to the approval and control of the Commission." In accordance with the Act and in pursuance of its fundamental principle of providing service at cost, the Commission requires that accurate cost records be kept in each municipality, and exercises a continuous supervision over the rates charged to consumers.

At the commencement of its operations, the Commission introduced scientifically-designed rate schedules for each of the three main classes into which the electrical service is usually divided, namely: residential or domestic service, commercial light service, and power service, and the schedules in use during the past year are presented in the tables of this statement.

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*Except townships served as parts of rural power districts, for which consult latter part of Section III.

Domestic Service: Domestic rates apply to electrical service in residences, for all household purposes, including lighting, cooking and the operation of all domestic appliances.

Commercial Light Service: Electrical energy used in stores, offices, churches, schools, public halls and institutions, hotels, public boarding-houses, and in all other premises for commercial purposes, including sign and display lighting, is billed at commercial lighting rates.

Water-Heater Service: For all consumers using continuous electric water heaters, low flat rates are available consisting of a fixed charge per month dependent on the capacity of the heating element and the cost of power to the municipal utility. Such heaters are so connected that the electrical energy they consume is not metered. For new installations the necessary equipment, including heater, thermostat, efficient insulation for water storage tank, and wiring, is installed by the Hydro-Electric Power Commission of Ontario without capital cost to the consumer or to the municipal electric utility.†

Power Service: The rate schedules given for power service in Statement "E" are those governing the supply of power at retail by each of the local municipal utilities. The average amount of power sold, per consumer, under these rates is approximately 40 horsepower—consult Statement "D." The Commission serves certain large power consumers direct on behalf of the various systems of municipalities.

The rates for power service, as given in the tables, are the rates for 24-hour unrestricted power at secondary distribution voltage. For service at primary distribution voltage the rates are usually five per cent lower than those stated. In municipalities where load conditions and other circumstances permit, lower rates are available for 10-hour power, and for other forms of restricted service. For these classifications, discounts additional to those listed in the table are applicable.

The service charge relates to the connected load or to the maximum demand, as measured by a 10-minute average peak, where a demand meter is installed. The prompt payment discount of 10 per cent on the total monthly bill is given for settlement within 10 days.

Under the tabulation of rates for power service there is a column headed "Basis of rate 130 hours monthly use of demand." This column shows approximately the net annual amount payable for a demand of one horsepower, assuming a monthly use of 130 hours, which includes 30 hours' use each month at the third energy rate. Broadly, the figures in this column serve to indicate approximately the relative cost of power service in the different municipalities listed.

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†In addition, the Commission supplies booster water-heating equipment to furnish extra requirements beyond the capacity of the continuous heater; current for the booster heater is measured and charged for at the regular rates.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality* C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
Acton	31.98	33-66	60	2.2	1.1	0.83	10
Agincourt	38.95	33-66	50	4	1.5	1.11	10
Ailsa Craig	52.25	33-66	55	3.5	1.5	0.83	10
Alexandria T	61.20	33-66	60	5	2	1.11	10
Alliston	52.97	33-66	40	4.5	2	1.39	10
Alvinston	92.56	33-66	60	6	2	2.22	10
Amherstburg T	35.84	33-66	55	2.8	1.3	0.83	10
Ancaster twp.	31.05	33-66	55	3	1.5	0.83	10
Apple Hill	52.95	33-66	60	6	2	1.66	10
Arkona	77.68	33-66	55	6	2	1.94	10
Arthur	68.79	33-66	40	6	2	1.67	10
Athens	51.69	33-66	45	5	1.5	1.39	10
Aylmer T	34.61	33-66	60	2.3	1	0.83	10
Ayr	34.44	33-66	55	3	1.25	1.11	10
Baden	31.63	33-66	60	2.5	1.25	0.83	10
Barrie T	31.45	33-66	60	2.5	1.25	0.83	10
Bath	75.84	33-66	40	6	2	3.33	10
Beachville	32.44	33-66	55	3	1.5	0.83	10
Beaverton	39.24	33-66	60	2.5	1.25	1.11	10
Beeton	69.14	33-66	35	7	2	1.67	10
Belle River	38.29	33-66	55	3.2	1.3	1.11	10
Belleville C	33.00	....	60	3	1.25	0.83	10
Blenheim	38.12	33-66	60	2.5	1.25	0.83	10
Bloomfield	53.55	33-66	50	4	1.5	1.11	10
Blyth	53.08	33-66	50	4	2	1.39	10
Bolton	43.59	33-66	55	3.5	1.6	1.11	10
Bothwell	46.04	33-66	60	2.5	1.25	0.83	10
Bowmanville T	37.02	....	60	5	1.5	0.83	10
Bradford	60.37	33-66	35	5.5	1.5	1.67	10
Brampton T	30.27	33-66	60	2	1	0.83	10
Brantford C	26.80	33-66	60	2	1	0.83	10
Brantford twp.	31.17	33-66	60	2.5	1.25	1.11	10
Brechin	52.92	33-66	45	5	2	1.67	10
Bridgeport	37.25	33-66	50	4	1.5	1.11	10
Brigden	65.15	33-66	60	4	2	1.38	10
Brighton	37.66	33-66	60	5.3	2	1.11	10
Brockville T	30.04	33-66	50	2	1	0.92	10 & 10
Brussels	49.86	33-33	50	4.5	2	1.66	10
Burford	32.49	33-66	60	2.3	1.2	1.11	10
Burgessville	60.43	33-66	50	4	2	1.11	10

*To distinguish them from the smaller municipalities and suburban districts the cities are indicated by a C and the towns of population 2,000 or more by a T; corresponding to the grouping in Statement "D."

Note.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

"E"

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	2.2	0.6	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	4	1	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	3.5	0.75	0.83	10	32.00	1.00	3.1	2	0.33	....	....	10
5	5	1	1.66	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	4.5	1	1.39	10	35.00	1.00	3.5	2.3	0.33	....	....	10
7.5	6	1	2.22	10	59.00	1.00	7.1	4.7	0.33	....	....	10
5	2.8	0.75	0.83	10	33.00	1.00	3.2	2.1	0.33	....	....	10
5	3	0.75	0.83	10	31.00	1.00	2.9	1.9	0.33	....	....	10
5	6	1	2.22	10	55.00	1.00	6.5	4.3	0.33	....	....	10
7.5	6	1	1.94	10	55.00	1.00	6.5	4.3	0.33	....	....	10
5	6	1	1.67	10	50.00	1.00	5.7	3.8	0.33	....	....	10
5	5	1	1.39	10	60.00	1.00	7.2	4.8	0.33	....	....	10
5	2.3	0.6	0.83	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	3	0.75	1.11	10	38.00	1.00	4	2.6	0.33	....	....	10
5	2.5	0.75	0.83	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	2.5	1	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
5	6	1	3.33	10	....	....	....	....	....	....	....	
5	3	0.75	0.83	10	23.00	1.00	2.1	1.4	0.33	....	10	10
5	2.5	1	1.11	10	25.00	1.00	2	1.3	0.33	....	....	10
5	7	1	1.67	10	38.00	1.00	4	2.6	0.33	....	....	10
5	3.2	0.75	1.11	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	2.5	1	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	2.5	0.75	0.83	10	34.00	1.00	3.4	2.2	0.33	....	....	10
5	4	1	1.11	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	4	1	1.39	10	55.00	1.00	6.5	4.3	0.33	....	....	10
5	3.5	1	1.11	10	36.00	1.00	3.7	2.4	0.33	....	....	10
5	2.5	0.75	0.83	10	38.00	1.00	4	2.6	0.33	....	....	10
5	4.5	1	0.83	10	27.00	1.00	2.3	1.5	0.33	....	....	10
5	5.5	1	1.67	10	38.00	1.00	4	2.6	0.33	....	....	10
5	2	0.75	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
....	†3.5 ††1.75	0.35	0.83.	10	23.00	1.00	2.1	1.4	0.33	....	10	10
5	2.5	0.75	1.11	10	24.00	1.00	2.3	1.5	0.33	....	10	10
5	5	1	1.67	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	4	0.75	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	4	1	1.38	10	48.00	1.00	5.4	3.6	0.33	....	....	10
5	5.3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	2	0.75	0.92	10&10	19.00	1.00	2	1.4	0.33	....	25	10
5	4.5	1	1.66	10	50.00	1.00	5.7	3.8	0.33	....	....	10
5	2.3	0.75	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	4	1	1.11	10	35.00	1.00	3.5	2.3	0.33	....	....	10

†First 30 hours' use per kw-hr.
††Next 70 hours' use per kw-hr.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
Caledonia	30.66	33–66	60	2.3	1.2	0.83	10
Campbellville	64.35	33–66	40	6	2	2.22	10
Cannington	39.65	33–66	55	3	1.5	1.11	10
Cardinal	35.39	33–66	50	3.5	1.5	1.39	10
Carleton Place T	32.59	33–66	50	3.5	2	0.83	10
Cayuga	51.54	33–66	45	5	2	1.66	10
Chatham C	30.40	33–66	60	2.5	1.11	0.83	10
Chatsworth	40.96	33–66	40	5	1.5	1.67	10
Chesley	33.82	33–66	55	3	1.5	1.11	10
Chesterville	42.24	33–66	55	3	1.5	0.83	10
Chippawa	25.78	33–66	60	2.5	1.25	1.11	10
Clifford	56.04	33–66	50	5	2	1.66	10
Clinton	37.30	33–66	60	2.5	1.5	1.11	10
Cobourg T	36.76	33–66	50	3.7	2	0.83	10
Colborne	38.16	33–66	60	5	2	0.83	10
Coldwater	33.80	33–66	55	2.5	1.25	1.11	10
Collingwood T	39.48	33–66	55	2.5	1	0.83	10
Comber	47.71	33–66	50	4	1.5	1.38	10
Cookstown	49.26	33–66	35	6	1.5	1.67	10
Cottam	46.32	33–66	50	4	1.5	1.66	10
Courtright	69.87	33–66	50	6	1.5	2.22	10
Creemore	53.11	33–66	45	5	2	1.66	10
Dashwood	52.27	33–66	45	4.5	1.5	1.11	10
Delaware	41.20	33–66	50	3.5	1.5	1.11	10
Deseronto	50.90	33–66	50	4.5	1.5	1.11	10
Dorchester	43.30	33–66	60	2.5	1.4	0.83	10
Drayton	57.06	33–66	55	3.5	1.5	1.11	10
Dresden	41.74	33–66	60	2.5	1.25	1.11	10
Drumbo	43.64	33–66	50	3.5	1.5	1.11	10
Dublin	65.25	33–66	60	6	2	1.67	10
Dundalk	36.68	33–66	55	3	1.5	1.11	10
Dundas T	26.22	33–66	60	2	1	0.83	10
Dunnville T	31.08	33–66	60	2.2	1.1	0.83	10
Durham	39.11	33–66	50	2.5	1.25	0.83	10
Dutton	36.38	33–66	60	2.3	1.1	0.83	10
East Windsor C	32.03	....	60	3.6	1.2	0.83	10
East York	31.68	33–66	60	2.2	1.2	0.83	10
Elmira T	36.09	33–66	60	3.2	1.3	0.83	10
Elmvale	37.83	33–66	55	3	1.5	0.83	10
Elmwood	41.27	33–66	45	5	1.5	1.39	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

"E"—Continued

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	2.3	0.75	0.83	10	25.00	1.00	2	1.3	0.33	......	......	10
5	6	1	2.22	10	50.00	1.00	5.7	3.8	0.33	......	......	10
5	3	1	1.11	10	35.00	1.00	3.5	2.3	0.33	......	......	10
5	3.5	1	1.39	10	40.00	1.00	4.3	2.8	0.33	min.3.33	......	10
5	3.5	1	0.83	10	25.00	1.00	2	1.3	0.33	......	......	10
5	5	1	1.66	10	45.00	1.00	4.9	3.3	0.33	......	......	10
5	2.5	0.8	0.83	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	5	1	1.67	10	45.00	1.00	4.9	3.3	0.33	......	......	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	3	1	0.83	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2.5	0.75	1.11	10	27.00	1.00	2.3	1.5	0.33	......	......	10
5	5	1	1.66	10	50.00	1.00	5.7	3.8	0.33	......	......	10
5	2.5	1	1.11	10	33.00	1.00	3.2	2.1	0.33	......	......	10
5	3.7	1	0.83	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	5	1	0.83	10	39.00	1.00	4.1	2.7	0.33	......	......	10
5	2.5	1	1.11	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2.5	1	0.83	10	20.00	1.00	1.6	1	0.33	......	10	10
5	4	1	1.38	10	36.00	1.00	3.7	2.4	0.33	......	......	10
5	6	1	1.67	10	43.00	1.00	4.7	3.1	0.33	......	......	10
5	4	1	1.66	10	43.00	1.00	4.7	3.1	0.33	min.2.22	......	10
7.5	6	1	2.22	10	55.00	1.00	6.5	4.3	0.33	......	......	10
5	5	1	1.66	10	40.00	1.00	4.3	2.8	0.33	......	......	10
5	4.8	1	1.11	10	48.00	1.00	5.4	3.6	0.33	......	......	10
5	3.5	1	1.11	10	35.00	1.00	3.5	2.3	0.33	......	......	10
5	4.5	1	1.11	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2.5	1	0.83	10	34.00	1.00	3.4	2.2	0.33	......	......	10
5	3.5	0.75	1.11	10	40.00	1.00	4.3	2.8	0.33	......	......	10
5	2.5	0.75	1.11	10	33.00	1.00	3.2	2.1	0.33	......	......	10
5	3.5	1	1.11	10	40.00	1.00	4.3	2.8	0.33	......	......	10
5	6	1	1.67	10	45.00	1.00	4.9	3.33	0.33	......	......	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2	0.6	0.83	10	19.00	1.00	2	1.4	0.33	......	25	10
5	2.2	0.75	0.83	10	21.00	1.00	1.8	1.1	0.33	......	10	10
5	2.5	1	0.83	10	24.00	1.00	2.3	1.5	0.33	......	10	10
5	2.3	0.75	0.83	10	24.00	1.00	2.3	1.5	0.33	......	10	10
5	2.5	0.8	0.83	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	2.2	0.6	0.83	10	21.00	1.00	1.8	1.1	0.33	......	10	10
5	3.2	0.8	0.83	10	25.00	1.00	2	1.3	0.33	......	......	10
5	3	1	0.83	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	5	1	1.39	10	45.00	1.00	4.9	3.3	0.33	......	......	10

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
Elora	37.81	33–66	55	3	1.5	1.11	10
Embro	42.40	33–66	55	3.2	1.5	1.67	10
Erieau	52.72	33–66	45	5	1.5	1.67	10
Erie Beach	74.12	33–66	50	7	2	1.94	10
Essex	35.36	33–66	60	2.5	1.2	0.83	10
Etobicoke twp.	27.69	33–66	60	2.2	1.2	0.83	10
Exeter	39.74	33–66	55	3	1.5	0.83	10
Fergus	35.99	33–66	55	3	1.5	1.11	10
Finch	58.76	33–66	40	3.5	1.5	1.66	10
Flesherton	44.09	33–66	55	3.5	1.5	1.11	10
Fonthill	32.03	33–66	55	3	1.5	1.38	10
Forest	46.50	33–66	55	3.3	1.3	1.11	10
Fort William C	23.83	33–66	50	2.5	1	0.83	10
Galt C	28.16	....	50 60	3.4	1.1	0.83	10
Gamebridge	....	33–66	45	5	2	1.67	10
Georgetown T	34.81	33–66	60	2.2	1.1	0.83	10
Glencoe	56.74	33–66	55	3.5	2	1.11	10
Glen Williams	....	33–66	60	3	1.5	0.83	10
Goderich T	41.27	33–66	55	3	1.5	0.83	10
Grand Valley	53.36	33–66	45	5	1.5	1.39	10
Granton	55.99	33–66	55	3	1.5	1.11	10
Gravenhurst	22.77	33–66	60	2	1	0.83	10
Guelph C	27.72	33–33	60	2	1	0.83	10
Hagersville	32.30	33–66	60	2	1	0.83	10
Hamilton C	25.12	33–66	60	2	1	0.83	10
Hanover T	30.92	33–66	55	3	1.5	0.83	10
Harriston	41.61	33–66	55	4	1.5	1.11	10
Harrow	37.83	33–66	55	2.8	1.3	0.83	10
Hastings	48.17	33–66	45	4.5	1.5	1.66	10
Havelock	50.71	33–66	50	5	1.5	0.83	10
Hensall	51.85	33–66	55	3.5	1.5	1.11	10
Hespeler T	28.65	33–66	60	2.7	1.5	0.83	10
Highgate	45.02	33–66	50	4	1.5	1.11	10
Holstein	124.71	33–66	40	9	2	1.67	10
Humberstone	28.41	33–66	60	2.5	1.25	0.83	10
Huntsville T	26.14	33–66	55	2.5	1.25	0.83	10
Ingersoll T	29.89	33–66	60	2	1.2	0.83	10
Jarvis	42.49	33–66	50	4	2	1.11	10
Kemptville	39.39	33–66	50	3.5	1.5	0.83	10
Kincardine T	48.28	33–66	40	4	2	1.11	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

"E"—Continued

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	3	0.75	1.11	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	3.2	1	1.67	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	5	1	1.67	10	50.00	1.00	5.7	3.8	0.33	min.2.22	....	10
5	7	1	1.94	10	60.00	1.00	7.2	4.8	0.33	....	....	10
5	2.5	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2.2	0.6	0.83	10	21.00	1.00	1.8	1.1	0.33	....	10	10
5	3	0.75	0.83	10	29.00	1.00	2.6	1.7	0.33	....	....	10
5	3	0.75	1.11	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	3.5	1	1.94	10	50.00	1.00	5.7	3.8	0.33	....	....	10
5	3.5	1	1.11	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	3	0.75	1.38	10	32.00	1.00	3.1	2	0.33	....	....	10
5	3.3	0.75	1.11	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	2.5	1	0.83	10	22.00	1.00	1.75	1	0.1	....	....	10
5	2.5	0.6	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	5	1	1.67	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	2.2	0.6	0.83	10	21.00	1.00	1.8	1.1	0.33	....	10	10
5	3.5	1	1.11	10	48.00	1.00	5.4	3.6	0.33	....	....	10
5	3	0.75	0.83	10	36.00	1.00	3.7	2.4	0.33	....	....	10
5	3	0.75	0.83	10	33.00	1.00	3.2	2.1	0.33	....	....	10
5	5	1	1.39	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	3	1	1.11	10	33.00	1.00	3.2	2.1	0.33	....	....	10
5	2	1	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
5	2	0.5	0.83	10	15.00	1.00	1.3	0.8	0.33	....	25	10
5	2	0.75	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
	†3.5 ††1.75	0.35	0.83	10	20.00	1.00	1.67	1.11	0.133	....	10	10
5	3	1	0.83	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	4	1	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	2.8	1	0.83	10	33.00	1.00	3.2	2.1	0.33	....	....	10
5	4.5	1	1.66	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	5	1	0.83	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	3.5	1	1.11	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	2.7	0.75	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
5	4	1	1.11	10	38.00	1.00	4	2.6	0.33	....	....	10
5	9	1	1.67	10	74.00	1.00	9.3	6.2	0.33	....	....	10
5	2.5	0.75	0.83	10	29.00	1.00	2.6	1.7	0.33	....	....	10
5	2.5	1	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	2	0.6	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	4	0.75	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	3.5	1	0.83	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	4	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10

†First 30 hours' use per kw-hr.
††Next 70 hours' use per kw-hr.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
Kingston C	24.00-36.00	33-66	50	2	1	0.83	10
Kingsville T	38.55	.. ..	60	3.6	1.2	0.83	10
Kirkfield	62.46	33-66	40	6	2	2.22	10
Kitchener C	27.19	33-66	60	2	1.2	0.83	10
Lakefield	43.67	33-66	50	3	2	0.83	10
Lambeth	41.40	33-66	50	3.5	1.5	1.11	10
Lanark	44.24	33-66	50	4	2	0.83	10
Lancaster	89.78	33-66	60	6	2	1.94	10
La Salle	37.04	....	60	4	1.5	1.11	10
Leamington T	38.06	....	60	3.2	1.2	0.83	10
Leaside	....	*3	....	**2	1.5	0.83	10
Lindsay T	40.18	33-66	40	3	1.5	0.83	10
Listowel T	35.70	33-66	60	2.5	1.25	1.11	10
London C	26.81	33-66	60	2	1	0.83	10
London twp.	33.90	33-66	55	2.8	1.3	1.11	10
Long Branch	28.98	33-66	60	2.2	1.2	0.83	10
Lucan	38.83	33-66	55	3.2	1.3	1.11	10
Lucknow	56.41	33-66	45	4.5	1.5	1.67	10
Lynden	37.38	33-66	55	3.5	1.5	1.38	10
Madoc	44.39	33-66	50	3.5	1.5	0.83	10
Markdale	34.10	33-66	55	3	1.5	1.11	10
Markham	41.48	33-66	55	3.3	1.3	1.11	10
Marmora	46.62	33-66	60	5	2	1.11	10
Martintown	48.00	33-66	40	5	2	1.66	10
Maxville	57.93	33-66	60	6	2	1.66	10
Meaford T	40.89	33-66	55	2.8	1.4	0.83	10
Merlin	46.06	33-66	50	4	1.5	1.11	10
Merritton T	23.78	33-66	60	2	1	0.83	10
Midland T	30.05	33-66	60	2	1	0.83	10
Mildmay	49.15	33-66	40	4.5	1.5	1.39	10
Milton	35.00	33-66	55	3	1.5	0.83	10
Milverton	35.01	33-66	60	3	1.5	1.11	10
Mimico T	26.30	33-66	60	2.4	1.2	0.83	10
Mitchell	34.26	33-33	60	2.5	1.5	0.83	10
Moorefield	62.75	33-66	50	4.5	2	1.39	10
Mount Brydges	41.24	33-66	55	2.8	1.3	1.11	10
Mount Forest	44.79	33-66	60	2.25	1.25	0.83	10
Napanee T	36.04	33-66	50	3.8	2	0.83	10
Neustadt	100.72	33-66	60	8	2	1.67	10
Newbury	51.69	33-66	45	5	1.5	1.38	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

*Service charge per 100 sq. ft.

**Per kw-hr. for first 3 kw-hrs. per 100 sq. ft.

"E"—Continued

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	2	0.75	0.83	10	20.00	1.00	1.5	1	0.33		10	10
5	2.6	0.75	0.83	10	34.00	1.00	3.4	2.2	0.33			10
5	6	1	2.22	10	40.00	1.00	4.3	2.8	0.33			10
5	2	0.75	0.83	10	19.00	1.00	2	1.4	0.33		25	10
5	3	1	0.83	10	24.00	1.00	2.3	1.5	0.33		10	10
5	3.5	1	1.11	10	36.00	1.00	3.7	2.4	0.33			10
5	4	1	1.11	10	60.00	1.00	7.2	4.8	0.33			10
5	6	1	2.78	10	69.00	1.00	8.6	5.7	0.33			10
5	3.5	1	1.11	10	33.00	1.00	3.2	2.1	0.33			10
5	2.5	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33			10
	§4–2	1	0.83	10	23.28	1.00	1.8	1.1	0.33			10
5	3	1	0.83	10	20.00	1.00	1.6	1	0.33		10	10
5	2.5	0.75	1.11	10	26.00	1.00	2.2	1.4	0.33			10
5	2	0.5	0.83	10	18.00	1.00	1.9	1.2	0.33		25	10
5	2.8	0.75	1.11	10	30.00	1.00	2.8	1.8	0.33			10
5	2.2	0.6	0.83	10	21.00	1.00	1.8	1.1	0.33		10	10
5	3.2	0.75	1.11	10	30.00	1.00	2.8	1.8	0.33			10
5	4.5	1	1.67	10	38.00	1.00	4	2.6	0.33			10
5	3.5	1.5	0.83	10	32.00	1.00	3.1	2	0.33			10
5	4	1	0.83	10	35.00	1.00	3.5	2.3	0.33			10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33			10
5	3.3	1	1.11	10	35.00	1.00	3.5	2.3	0.33			10
5	5	1	1.11	10	40.00	1.00	4.3	2.8	0.33			10
5	5	1	2.22	10	55.00	1.00	6.5	4.3	0.33			10
5	6	1	2.22	10	55.00	1.00	6.5	4.3	0.33			10
5	2.8	1	0.83	10	29.00	1.00	2.6	1.7	0.33			10
5	4	1	1.11	10	37.00	1.00	3.8	2.5	0.33	min.2.22		10
5	2	0.75	0.83	10	18.00	1.00	1.9	1.2	0.33		25	10
5	2	1	0.83	10	17.00	1.00	1.7	1.1	0.33		25	10
5	4.5	1	1.39	10	40.00	1.00	4.3	2.8	0.33			10
5	3	0.75	0.83	10	24.00	1.00	2.3	1.5	0.33		10	10
5	3	1	1.11	10	26.00	1.00	2.2	1.4	0.33			10
5	2.4	0.6	0.83	10	22.00	1.00	1.9	1.3	0.33		10	10
5	2.5	0.75	0.83	10	26.00	1.00	2.2	1.4	0.33			10
5	4.5	1	1.39	10	50.00	1.00	5.7	3.8	0.33			10
5	2.8	0.75	1.11	10	36.00	1.00	3.7	2.4	0.33			10
5	2.25	1	0.83	10	30.00	1.00	2.8	1.8	0.33			10
5	3.8	1	0.83	10	25.00	1.00	2	1.3	0.33			10
5	8	1	1.67	10	40.00	1.00	4.3	2.8	0.33			10
5	5	1	1.38	10	53.00	1.00	6.2	4.1	0.33			10

§First 70 hours' use 4 cents per kw-hr.
Next 70 hours' use 2 cents per kw-hr.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
New Hamburg	34.00	33–66	60	3	1.5	0.83	10
New Toronto T	28.71	33–66	60	2	1.1	0.83	10
Niagara Falls C	21.49	33–66	60	2	1	0.92	10 & 10
Niagara-on-the-Lake	25.44	33–66	60	2.5	1.25	0.83 to 1.11	10
Nipigon twp.	28.64	33–66	55	3.5	1.25	1.39	10
North York twp.	32.36	33–66	55	3.5	1.5	1.11	10
Norwich	36.00	33–66	60	2.5	1.25	0.83	10
Norwood	40.24	33–66	50	5	1.5	1.11	10
Oil Springs	43.02	33–66	50	3.5	1.5	1.11	10
Omemee	....	33–66	60	4	1.5	1.11	10
Orangeville T	44.98	33–66	55	3	1.5	1.11	10
Oshawa C	36.56	....	45	5	1.5	0.83	10
Ottawa C	14.26	33–66	60 60	2 1	0.5	0.83	10
Otterville	47.76	33–66	55	3	1.5	1.11	10
Owen Sound C	30.68	33–66	60	2.5	1	0.83	10
Paisley	54.97	33–66	45	5	1.5	1.67	10
Palmerston	37.85	33–66	60	2.7	1.5	1.11	10
Paris T	28.49	33–66	60	2	1	0.83	10
Parkhill	64.00	33–66	50	4.5	2	1.38	10
Penetanguishene T	35.34	33–66	55	3	1.5	0.83	10
Perth T	30.70	33–66	55	2.8	1	0.83	10
Peterborough C	30.87	33–66	50	2.5	1.25	0.83	10
Petrolia T	38.04	33–66	60	2.4	1.1	0.83	10
Picton T	46.19	33–66	60	2.5	1.25	0.83	10
Plattsville	54.03	33–66	45	5	2	1.66	10
Point Edward	37.18	....	60	3.7	1.3	0.83	10
Port Arthur C	23.39	33–66	30	2	1	0.92	10 & 10
Port Colborne T	28.27	33–66	60	2.8	1.25	0.83	10
Port Credit	32.84	33–66	60	2.2	1.2	0.83	10
Port Dalhousie	29.69	33–66	60	2.2	1.2	0.83	10
Port Dover	37.12	33–66	50	2.6	1.2	0.83	10
Port Elgin	36.05	33–66	40	3	1.5	1.11	10
Port Hope T	37.06	33–66	60	3.5	1.5	0.83	10
Port McNicoll	35.44	33–66	50	3.5	1.5	0.83	10
Port Perry	47.06	33–66	50	3.5	1.5	1.11	10
Port Rowan	58.56	33–66	60	6	2	1.66	10
Port Stanley	36.88	33–66	55	2.9	1.4	0.83	10
Prescott T	29.93	33–66	60	2	1	0.83	10
Preston T	27.74	33–66	60	2.5	1.25	0.83	10
Priceville	64.92	33–66	60	8	2	1.67	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

"E"—Continued

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	3	1	0.83	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	2	0.6	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	2	0.35	0.88	15	15.00	1.00	1.3	0.8	0.33	....	25	10
5	2.5	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33	min.2.00	....	10
5	3.5	1	1.39	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	3.5	0.75	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	2.5	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	5	1	1.11	10	38.00	1.00	4	2.6	0.33	....	....	10
5	3.5	1	1.11	10	34.00	1.00	3.4	2.2	0.33	....	....	10
5	4	1	1.11	10	37.00	1.00	3.8	2.5	0.33	....	....	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	3.5	1	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
....	†5 ††2.2	0.5	0.83	10	20.00	1.00	1.8	1.2	0.15	....	15	10
5	3	1	1.11	10	36.00	1.00	3.7	2.4	0.33	....	....	10
5	2.5	1	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
5	5	1	1.67	10	55.00	1.00	6.5	4.3	0.33	....	....	10
5	2.7	1	1.11	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2	0.75	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
5	4.5	1	1.38	10	48.00	1.00	5.4	3.6	0.33	....	....	10
5	3	1	0.83	10	23.00	1.00	2.1	1.4	0.33	....	10	10
5	2.8	1	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
5	2.5	1.25	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	2.4	0.75	0.83	10	29.00	1.00	2.6	1.7	0.33	....	....	10
5	2.5	1	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	5	1	1.66	10	48.00	1.00	5.4	3.6	0.33	min.2.00	....	10
5	2.8	0.75	0.83	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	2	0.5	0.92	10&10	22.00	1.00	1.75	1	0.1	....	....	10
5	2.8	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2.2	0.75	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	2.2	0.75	0.83	10	20.00	1.00	1.6	1	0.33	....	10	10
5	2.6	1	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	3.5	1	0.83	10	24.00	1.00	2.3	1.5	0.33	....	10	10
5	3.5	1	0.83	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	3.5	1	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	6	2	1.66	10	60.00	1.00	7.2	4.8	0.33	....	....	10
5	2.9	0.75	0.83	10	37.00	1.00	3.8	2.5	0.33	min.1.11	....	10
5	2	1	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
5	2.5	0.75	0.83	10	19.00	1.00	2	1.4	0.33	....	25	10
5	8	1	1.67	10	50.00	1.00	5.7	3.8	0.33	....	....	10

†First 30 hours' use per kw-hr.
††Next 70 hours' use per kw-hr.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate		All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
			Number of kw-hrs. per month	Per kw-hr. per month			
	$ c.	cents		cents	cents	$ c.	%
Princeton	47.86	33–66	50	3.5	1.5	1.66	10
Queenston	28.04	33–66	65	3	1.5	1.38	10
Richmond	53.89	33–66	35	6	2	1.95	10
Richmond Hill	34.32	33–66	60	2.2	1.1	0.83	10
Ridgetown	37.95	33.66	60	2.2	1.25	0.83	10
Ripley	71.09	33–66	50	7	1.5	1.67	10
Riverside T	33.19	......	55	4.2	1.5	0.83	10
Rockwood	39.39	33–66	60	2.7	1.25	1.11	10
Rodney	52.06	33–66	55	3	1.5	0.83	10
Rosseau	95.39	*33	....	8	2	*2.22	10
Russell	63.33	33–66	50	6	2	1.39	10
St. Catharines C	23.72	33–66	30–60	2	1	0.83	10
St. Clair Beach	38.31	.....	55	5.2	1.75	1.66	10
St. George	38.35	33–66	55	3	1.25	1.11	10
St. Jacobs	34.38	33–66	60	3	1.5	1.11	10
St. Marys T	34.86	33–66	60	3	1.5	1.11	10
St. Thomas C	28.38	....	60	2.6	1	0.83	10
Sandwich T	32.35	....	60	3.6	1.2	0.83	10
Sarnia C	32.82	....	60	3.5	1.1	0.83	10
Scarboro twp.	31.06	33–33	60	2.6	1.3	0.83	10
Seaforth	34.69	33–66	60	2.5	1.25	0.83	10
Shelburne	41.23	33–66	50	3	1.5	1.11	10
Simcoe T	29.73	33–66	60	2	1.25	0.83	10
Smiths Falls T	28.17	33.66	55	3	1.5	0.83	10
Southampton	33.80	33–66	40	3	1.5	1.11	10
Springfield	53.78	33–66	55	3.5	1.5	1.11	10
Stamford twp.	22.09	33–66	60	2.25	1.25	0.83	10
Stayner	39.28	33–66	55	2.5	1.25	0.83	10
Stirling	30.76	33–66	45	2.5	1.25	0.83	10
Stouffville	46.11	33–66	55	3.2	1.3	1.11	10
Stratford C	29.46	......	60	3.4	1.25	0.83	10
Strathroy T	32.36	33–66	60	2.5	1.25	0.83	10
Sunderland	52.65	33–66	45	5	1.5	1.39	10
Sutton	52.70	33–33	50	4	2	1.11	10
Tara	43.36	33–66	40	4	2	1.11	10
Tavistock	34.33	33–66	60	2.5	1.25	0.83	10
Tecumseh T	36.29	. . .	55	4.7	1.75	1.11	10
Teeswater	54.55	33–66	60	5	1.5	1.67	10
Thamesford	37.23	33–66	60	2.4	1.2	1.11	10
Thamesville	38.25	33–66	55	2.6	1.2	0.83	10
Thedford	66.88	33–66	50	5	2	1.66	10
Thorndale	67.08	33–66	50	4	2	1.38	10
Thornton	60.04	33–66	60	8	2	1.67	10
Thorold T	25.48	33–66	60	2	1	0.83	10
Tilbury	37.58	33–66	60	2.2	1.2	0.83	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.
*According to consumers' demand.

"E"—Continued

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	3.5	1	1.66	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	3	1	1.38	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	6	1	2.22	10	60.00	1.00	7.2	4.8	0.33	....	....	10
5	2.2	0.75	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	2.2	0.75	0.83	10	22.00	1.00	1.9	1.3	0.33	....	10	10
5	7	1	1.67	10	50.00	1.00	5.7	3.8	0.33	....	....	10
5	3	0.8	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2.7	0.75	1.11	10	42.00	1.00	4.6	3	0.33	....	....	10
5	3	0.75	0.83	10	35.00	1.00	3.5	2.3	0.33	....	....	10
5	8	2	2.22	10	58.00	1.00	6.9	4.6	0.33	....	....	10
5	5	1	1.94	10	56.00	1.00	6.6	4.4	0.33	....	....	10
......	†3.5 ††1.75	0.35	0.83	10	17.00	1.00	1.67	1.13	0.16	....	25	10
5	4	1	1.66	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	3	0.75	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	3	1	1.11	10	24.00	1.00	2.3	1.5	0.33	....	10	10
5	3	0.1	1.11	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2	0.5	0.83	10	17.00	1.00	1.7	1.1	0.33	....	25	10
5	2.5	0.8	0.83	10	23.00	1.00	2.1	1.4	0.33	....	10	10
5	2.4	0.6	0.83	10	24.00	1.00	2.3	1.5	0.33	....	10	10
5	2.4	0.6	0.83	10	23.00	1.00	2.1	1.4	0.33	....	10	10
5	2.5	0.75	0.83	10	29.00	1.00	2.6	1.7	0.33	....	....	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	2	0.75	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	3	1	0.83	10	26.00	1.00	2.2	1.4	0.33	....	....	10
5	3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	....	....	10
5	3.5	1	1.11	10	42.00	1.00	4.6	3	0.33	....	....	10
5	2.25	0.6	0.83	10	18.00	1.00	1.9	1.2	0.33	....	25	10
5	2.5	1	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	2.5	1	0.83	10	28.00	1.00	2.5	1.6	0.33	....	....	10
5	3.2	1	1.11	10	43.00	1.00	4.7	3.1	0.33	....	....	10
5	2.3	0.75	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	2.5	0.75	0.83	10	27.00	1.00	2.3	1.5	0.33	....	....	10
5	5	1	1.39	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	4	1	1.11	10	50.00	1.00	5.7	3.8	0.33	....	....	10
5	4	1	1.11	10	45.00	1.00	4.9	3.3	0.33	....	....	10
5	2.5	0.75	0.83	10	25.00	1.00	2	1.3	0.33	....	....	10
5	3.5	0.8	1.11	10	32.00	1.00	3.1	2	0.33	....	....	10
5	5	1	1.67	10	40.00	1.00	4.3	2.8	0.33	....	....	10
5	2.4	0.75	1.11	10	29.00	1.00	2.6	1.7	0.33	....	....	10
5	2.6	0.75	0.83	10	30.00	1.00	2.8	1.8	0.33	....	....	10
7.5	5	1	1.66	10	55.00	1.00	6.5	4.3	0.33	....	....	10
5	4	1	1.38	10	48.00	1.00	5.4	3.6	0.33	....	....	10
5	8	1	1.67	10	58.00	1.00	6.9	4.6	0.33	....	....	10
5	2	0.5	0.83	10	19.00	1.00	2	1.4	0.33	....	25	10
5	2.2	0.75	0.83	10	21.00	1.00	1.8	1.1	0.33	....	10	10

†First 30 hours' use per kw-hr.
††Next 70 hours' use per kw-hr.

STATEMENT

Cost of Power to Municipalities and Rates to Consumers for for the Year 1934, in Urban Municipalities

Municipality C—City T—Town (pop. 2,000 or more)	Annual cost to the Commission on the works to serve electrical energy to municipality on a horse-power basis	Domestic service					
		Service charge per month	First rate: Number of kw-hrs. per month	First rate: Per kw-hr. per month	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount
	$ c.	cents		cents	cents	$ c.	%
Tillsonburg..............T	34.46	33-66	60	2	1.2	0.83	10
Toronto.. C	26.13	*3	....	**2	1	0.83	10
Toronto twp............	30.89	33-66	55	2.7	1.3	1.11	10
Tottenham	93.85	33-66	30	7	2	1.67	10
Trafalgartwp.,Area1	....	55	60	3.5	2	1.11	10
Trafalgartwp.,Area2	....	44-66	55	3.5	2	1.38	10
Trenton...................T	28.05	33-66	50	3.5	1.5	0.83	10
Tweed	57.17	33-33	60	5.5	2	1.11	10
Uxbridge	48.35	33-66	50	3.5	1.5	1.11	10
Victoria Harbour......	39.66	33-66	55	3	1.5	1.11	10
Walkerton...............T	33.11	33-66	50	3.3	1.5	1.11	10
Walkerville............T	29.25	.	60	3.6	1.2	0.83	10
Wallaceburg ....T	36.05	33-66	60	2.5	1.2	0.83	10
Wardsville.................	61.64	33-66	40	6	2	1.66	10
Warkworth	47.68	33-66	50	5	1.5	1.55	10
Waterdown...............	31.27	33-66	60	2.5	1.25	0.83	10
Waterford	30.90	33-66	60	2	1	0.83	10
Waterloo..................T	28.06	33-66	60	2	1.25	0.83	10
Watford.....................	50.26	.....	55	4.5	1.5	1.11	10
Waubaushene...........	39.43	33-66	55	2.5	1.25	1.11	10
Welland....................C	24.35	33-66	60	2.2	1.1	0.83	10
Wellesley..................	49.73	33-66	50	4	2	1.11	10
Wellington	43.37	33-66	50	2.5	1.25	0.83	10
West Lorne...............	43.27	33-66	55	2.8	1.3	0.83	10
Weston ....T	27.02	33-66	60	2	1	0.83	10
Westport...................	72.71	33-66	30	7	2	2.78	10
Wheatley..................	53.40	33-66	50	4	1.5	1.39	10
Whitby ....T	36.34	33-66	60	3	1.25	0.94	20
Wiarton....	61.73	33-66	40	5	2	1.67	10
Williamsburg	33.56	33-66	60	2.5	1.3	1.11	10
Winchester	36.47	33-66	60	2.5	1.25	0.83	10
Windermere.............	61.94	‡33	....	8	2	‡2.22	10
Windsor..... C	29.04	. .	60	3.6	1.2	0.83	10
Wingham................ ..	53.91	33-66	45	4	1.5	1.11	10
Woodbridge	34.07	33-66	55	3	1.5	0.83	10
Woodstock C	28.42	33-66	60	2	1	0.83	10
Woodville	55.94	33-66	50	4	1.5	1.11	10
Wyoming.......	53.18	33-66	50	4.5	1.5	1.38	10
Yorktp.(inc.Swansea and Forest Hill)....		33-66	60	2	1.3	0.83	10
Zurich	64.09	33-66	50	4.5	2	1.38	10

NOTE.—Domestic service charge—33 cents per month per service when the permanently installed appliance load is under 2,000 watts and 66 cents per month when over 2,000 watts.

*Service charge per 100 sq. ft.

**Per kw-hr. for first 3 kw-hrs. per 100 sq. ft.

‡According to consumers' demand.

"E"—Concluded

Domestic Service—Commercial Light Service—Power Service Served by the Hydro-Electric Power Commission

Commercial light service					Power service							
Service charge per 100 watts min. 1,000 watts	First 100 hrs. per month per kw-hr.	All additional per kw-hr.	Minimum gross monthly bill	Prompt payment discount	Basis of rate 130 hours monthly use of demand	Service charge per h.p. per month	First 50 hr. per month per kw-hr.	Second 50 hr. per month per kw-hr.	All additional per kw-hr.	Minimum or maximum per h.p. per month	Local discount	Prompt payment discount
cents	cents	cents	$ c.	%	$ c.	$ c.	cents	cents	cents	$ c.	%	%
5	2	0.6	0.83	10	24.00	1.00	2.3	1.5	0.33	......	10	10
......	§4 & 2	1	0.83	10	......	*a*D.C.	2.5	1.25	0.60	......	......	10
						*b*A.C.	1.5	0.75	0.33	......	......	10
5	2.7	0.7	1.11	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	7	1	1.67	10	45.00	1.00	4.9	3.3	0.33	......	......	10
......	†8 ††4	1	1.11	10	37.00	1.00	3.5	2.3	1	......	......	10
5	3.5	1.5	1.38	10	38.00	1.00	3.5	2.3	1.5	......	......	10
5	3.5	1	0.83	10	25.00	1.00	2	1.3	0.33	......	......	10
5	5.5	1	1.11	10	32.00	1.00	3.1	2	0.33	......	......	10
5	3.5	1	1.11	10	35.00	1.00	3.5	2.3	0.33	......	......	10
5	3	1	1.11	10	40.00	1.00	4.3	2.8	0.33	......	......	10
5	3.3	1	1.11	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2.5	0.8	0.83	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	2.5	0.7	0.83	10	25.00	1.00	2	1.3	0.33	......	......	10
5	6	1	1.66	10	55.00	1.00	6.5	4.3	0.33	......	......	10
5	5	1	1.55	10	44.50	1.00	4.9	3.3	0.33	......	......	10
5	2.5	0.75	0.83	10	28.00	1.00	2.5	1.6	0.33	......	......	10
5	2	0.75	0.83	10	20.00	1.00	1.6	1	0.33	......	10	10
5	2.25	1	0.83	10	19.00	1.00	2	1.4	0.33	......	25	10
5	4	1	1.11	10	42.00	1.00	4.6	3	0.33	......	......	10
5	2.5	1	1.11	10	33.00	1.00	3.2	2.1	0.33	......	......	10
5	2.2	0.6	0.83	10	18.00	1.00	1.9	1.2	0.33	......	25	10
5	4	1	1.11	10	35.00	1.00	3.5	2.3	0.33	......	......	10
5	2.5	1	0.83	10	36.00	1.00	3.7	2.4	0.33	......	......	10
5	2.8	1	0.83	10	30.00	1.00	2.8	1.8	0.33	......	......	10
5	2	0.6	0.83	10	18.00	1.00	1.9	1.2	0.33	......	25	10
5	7	1	2.78	10	50.00	1.00	5.7	3.8	0.33	......	......	10
5	4	1	1.39	10	40.00	1.00	4.3	2.8	0.33	......	......	10
5.6	3	1	0.94	20	25.00	1.00	2	1.3	0.33	......	......	10
5	5	1	1.67	10	43.00	1.00	4.7	3.1	0.33	......	......	10
5	2.5	1	1.11	10	55.00	1.00	6.5	4.3	0.33	......	......	10
5	2.5	1	0.83	10	40.00	1.00	4.3	2.8	0.33	min.2.22	......	10
5	8	2	‡2.22	10	58.00	1.00	6.9	4.6	0.33	......	......	10
5	2.5	0.8	0.83	10	23.00	1.00	2.1	1.4	0.33	......	10	10
5	4	1	1.11	10	38.00	1.00	4	2.6	0.33	......	......	10
5	3	1	0.83	10	22.00	1.00	1.9	1.3	0.33	......	10	10
5	2	0.5	0.83	10	17.00	1.00	1.7	1.1	0.33	......	25	10
5	4	1	1.11	10	35.00	1.00	3.5	2.3	0.33	......	......	10
5	4.5	1	1.38	10	50.00	1.00	5.7	3.8	0.33	......	......	10
5	2	0.75	0.83	10	21.00	1.00	1.8	1.1	0.33	......	10	10
5	4.5	1	1.38	10	50.00	1.00	5.7	3.8	0.33	min,2.77	......	10

§First 70 hours' use 4 cents per kw-hr.
Next 70 hours' use 2 cents per kw-hr.

a. D.C. Service charge $1.35 per h.p. for first 10 h.p., plus $1.00 per h.p. for additional h.p.

b. A.C. Service charge $1.25 per h.p. for first 10 h.p., plus $1.00 per h.p. for additional h.p.

†First 30 hours' use per kw-hr.

††Next 70 hours' use per kw-hr.

APPENDIX I

ACTS

CHAPTER 42

An Act to amend The Power Commission Act

Assented to April 3rd, 1934.

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. This Act may be cited as *The Power Commission Act, 1934*. Short title.

2. Section 36 of *The Power Commission Act* is amended by adding at the end thereof the following words: Rev. Stat., c. 57, s. 36, amended.

> "and the said purposes of the Commission shall, without limiting the generalities thereof, include repayment on account of the advances by the Province to the Commission."

3. This Act shall come into force on the day upon which it receives the Royal Assent. Commencement of Act.

APPENDIX

TOTAL MILEAGE OF TRANSMISSION LINES AND NUMBER OF

System and voltage	Line route miles		
	Total to Oct. 31, 1933	Additions 1934	Total to Oct. 31, 1934
Niagara system—220,000-volt	705.27		705.27
Northern Ontario properties—132,000-volt	360.61	1.35	361.96
Northern Ontario properties—132,000-volt		94.86	94.86
Niagara system—110,000-volt	713.70		713.70
Niagara system—110,000-volt	67.16		67.16
Eastern Ontario system—110,000-volt	52.94	54.14	107.08
Eastern Ontario system—110,000-volt	37.18	2.64	39.82
Eastern Ontario system—44,000-volt	24.33		24.33
Thunder Bay system—110,000-volt	82.12		82.12
Thunder Bay system—110,000-volt	81.79	1.54	83.33
Thunder Bay system—22,000-volt	0.35		0.35
Thunder Bay system—12,000-volt	1.45		1.45
Georgian Bay system—110,000-volt	55.83		55.83
Niagara system—90,000-volt	65.85		65.85
Niagara system—60,000-volt	94.23		94.23
Niagara system—60,000-volt	23.72		23.72
Niagara system—46,000-volt	16.94		16.94
Niagara system—46,000-volt	21.54		21.54
Niagara system—30,000-volt	13.29		13.29
Niagara system—26,400-volt	606.62	5.15	611.77
Niagara system—13,200-volt	434.73	0.17	434.90
Niagara system—13,200-volt	0.71		0.71
Niagara system—12,000-volt	115.04	*1.09	113.95
Dominion Power system—44,000-volt	37.35		37.35
Dominion Power system—44,000-volt	140.60		140.60
Dominion Power system—22,000-volt	28.69		28.69
Dominion Power system—22,000-volt (concrete poles)	9.05		9.05
Dominion Power system—10,000-volt	11.23		11.23
Georgian Bay system—38,000-volt	54.28		54.28
Georgian Bay system—6,600-volt	2.30		2.30
Georgian Bay system—			
Severn district—22,000-volt	177.01	*0.45	176.56
Eugenia district—26,400-volt and less	321.73		321.73
Wasdells district—22,000-volt	83.72		83.72
Muskoka district—38,000-volt and less	26.46		26.46
Eastern Ontario system—			
Central district—44,000-volt and less	503.06		503.06
St. Lawrence district—44,000-volt	125.18	1.61	126.79
Rideau district—26,400-volt	76.87		76.87
Madawaska district—33,000-volt and less	58.71		58.71
Northern Ontario properties—			
Abitibi district—26,400-volt and less		5.44	5.44
Nipissing district—22,000-volt	51.39		51.39
Sudbury district—22,000-volt	33.23		33.23
Totals	5,316.26	†165.36	5,481.62

*—Removals. †—Net increase.

II

SUPPORTING STRUCTURES CONSTRUCTED AND ACQUIRED

Circuit miles			Number of steel towers			Number of wood poles		
Total to Oct. 31, 1933	Additions 1934	Total to Oct. 31, 1934	Total to Oct. 31, 1933	Additions 1934	Total to Oct. 31, 1934	Total to Oct. 31, 1933	Additions 1934	Total to Oct. 31, 1934
705.27		705.27	3,522		3,522			
721.22	2.70	723.92	1,867	6	1,873			
	94.86	94.86					1,373	1,373
1,372.76		1,372.76	6,555	7	6,562			
67.16		67.16				824		824
55.57	54.82	110.39	299	336	635			
37.18	2.64	39.82				556	29	585
24.33		24.33				286		286
164.28		164.28	539		539			
81.79	1.54	83.33				1,320	32	1,352
0.35		0.35				15		15
1.45		1.45				61		61
55.83		55.83				548		548
131.70	*2.70	129.00	409		409			
80.27		80.27	947	*6	941			
23.72		23.72				641		641
50.16		50.16	376		376			
21.54		21.54				672		672
26.58		26.58				612		612
770.60	5.15	775.75				23,504	189	23,693
535.25	*15.42	519.83				17,587	*2	17,585
1.42		1.42	16		16			
181.74	*3.48	178.26	7		7	5,018	103	5,121
71.46		71.46	526		526			
136.98		136.98				5,116		5,116
34.19		34.19				1,289		1,289
18.10		18.10				253		253
11.23		11.23				485		485
54.28		54.28				684		684
2.30		2.30				101		101
274.99	*0.52	274.47				7,593	*104	7,489
404.62		404.62				12,648		12,648
87.66		87.66				3,267		3,267
26.46		26.46				1,148		1,148
554.29		554.29	2		2	17,993		17,993
125.18	1.61	126.79				4,334	73	4,407
76.87		76.87				2,870		2,870
58.71		58.71				1,965		1,965
	5.44	5.44					199	199
67.91		67.91				1,841		1,841
33.23		33.23				1,396		1,396
7,148.63	†146.64	7,295.27	15,065	†343	15,408	114,627	†1,892	116,519

APPENDIX II

LINES FOR THE USE OF

System	Total route miles			Miles of single-circuit line		
	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934
Niagara system	*703.52	....	703.52	320.11	....	320.11
Georgian Bay system	....	....	....	....	....	....
Eastern Ontario system	*8.35	....	8.35	6.87	-1.37	5.50
Thunder Bay system	....	....	....	....	....	....
Northern Ontario properties	159.00	87.06	246.06	159.00	86.04	245.04
Totals	†870.87	87.06	957.93	485.98	84.67	570.65

*Included in totals 1.30 miles 8-circuit line and 0.18 miles of 7-circuit line (E.O. system).

†This total exclusive of cable.

TELEPHONE CIRCUITS CARRIED

System	Total route miles			Miles of single-circuit		
	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934
Niagara system and N A	1,068.88	-6.60	1,062.28	976.42	-1.13	975.29
Georgian Bay system	708.89	0.42	709.31	637.11	8.52	645.63
Eastern Ontario system	772.11	43.40	815.51	694.30	38.61	732.91
Thunder Bay system	96.41	1.45	97.86	96.41	1.45	97.86
Northern Ontario properties	115.03	133.21	248.24	114.50	133.21	247.71
Totals	2,761.32	171.88	2,933.20	2,518.74	180.66	2,699.40

Derived (carrier and phantom) circuits to Oct. 31, 1933—Niagara system—454.19 miles
Derived (carrier and phantom) circuits to Oct. 31, 1934—Niagara system—453.48 miles
These circuits are additional to the above tabulation but are made available by utilizing listed

Concluded

TELEPHONE CIRCUITS ONLY

Miles of double-circuit line			Miles of three-circuit line			Miles of four-circuit line			Miles of telephone cable		
Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934
273.29	....	273.29	9.08	....	9.08	95.24	....	95.24	27.56	....	27.56
....	....	....	....	....	....	....	....	....	....	....	....
....	1.37	1.37	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	1.02	1.02	....	....	....	....	....	....	....	....	....
273.29	2.39	275.68	9.08	....	9.08	95.24	....	95.24	27.56	....	27.56

Also 5.80 miles of 6-circuit line in Niagara system.

JOINTLY WITH POWER CIRCUITS

Miles of double-circuit			Miles of three-circuit			Miles of four-circuit			Miles telephone cable		
Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934	Completed to Oct. 31, 1933	Completed Oct. 31, 1933 to Oct. 31, 1934	Total to Oct. 31, 1934
89.76	–8.22	81.54	2.70	1.75	4.45	....	1.00	1.00	....	....	....
56.97	–0.34	56.63	14.81	–7.76	7.05	....	....	....	....	....	....
77.81	4.79	82.60	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
0.53	....	0.53	....	....	....	....	....	....	....	....	....
225.07	–3.77	221.30	17.51	–6.01	11.50	....	1.00	1.00	....	....	....

Eastern Ontario system—12.70 miles.

Eastern Ontario system—12.70 miles.

physical circuits.

APPENDIX III

DISTRIBUTION LINES AND SYSTEMS

Summaries of Data respecting Rural Distribution Systems, constructed by The Hydro-Electric Power Commission

Below is shown in tabular form the work carried on under the supervision of the Distribution section of the Electrical Engineering department during the year ended October 31, 1934.

SUMMARY OF CONSTRUCTION IN RURAL POWER DISTRICTS

System	At October 31, 1933		At October 31, 1934	
	Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
NIAGARA SYSTEM	6,640.93	45,293	6,754.26	46,282
GEORGIAN BAY SYSTEM—				
Severn district	279.40	2,519	283.16	2,676
Eugenia district	207.16	1,072	212.47	1,118
Wasdells district	227.35	1,534	231.45	1,570
Muskoka district	105.12	592	114.69	656
Bala district	35.55	222	41.27	252
EASTERN ONTARIO SYSTEM—				
Central Ontario district	960.59	6,768	994.03	7,094
St. Lawrence district	393.52	2,380	398.49	2,423
Rideau district	75.53	458	77.40	486
Madawaska district	10.09	65	11.21	63
Ottawa district	181.87	1,092	183.84	1,127
THUNDER BAY SYSTEM	78.30	262	80.96	289
NORTHERN ONTARIO PROPERTIES—				
Nipissing district	12.07	313	14.62	352
Manitoulin district	37.25	180	37.25	184
Total	9,244.73	62,750	9,435.10	64,572

DETAILS OF CONSTRUCTION IN RURAL POWER DISTRICTS

Rural power district	Property number	At October 31, 1933		At October 31, 1934	
		Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
NIAGARA SYSTEM					
Acton	N5D1	8.00	26	8.85	27
Ailsa Craig	N4D7	6.00	19	6.00	19
Alvinston	N18D9	4.50	10	4.50	11
Amherstburg	N15D3	66.62	594	67.02	597
Aylmer	N11D2	110.95	623	112.45	650
Ayr	N12D4	23.76	87	23.76	93
Baden	N7D1	96.87	449	97.17	458
Beamsville	N44D3	156.60	1,489	159.32	1,491
Belle River	N15D2	43.83	368	43.83	367
Blenheim	N14D3	59.44	323	60.47	330
Bond Lake	N3D3	161.50	1,556	165.69	1,612
Bothwell	N14D10	37.58	136	39.39	145
Brampton	N13D2	51.62	172	52.93	189
Brant	N12D1	110.56	565	112.69	596
Brigden	N18D8	36.61	114	36.61	114
Burford	N12D2	49.70	268	50.80	282
Caledonia	N2D5	102.52	496	103.09	516
Chatham	N14D1	142.71	815	143.51	824
Chippawa	N1D7	25.73	178	25.98	179
Clinton	N8D11	70.33	395	70.53	399
Delaware	N4D3	130.54	643	139.59	677
Dorchester	N4D1	109.84	586	111.16	595
Dresden	N14D12	24.23	89	24.23	90
Drumbo	N12D5	56.38	269	58.98	278
Dundas	N2D1	110.27	762	114.02	773
Dunnville	N1D9	18.00	97	19.33	103
Dutton	N11D3	46.85	195	47.40	202
Elmira	N7D3	24.20	93	24.45	93
Elora	N5D4	46.17	272	47.36	279
Essex	N15D7	88.04	455	88.04	458
Exeter	N4D6	68.43	622	68.43	648
Forest	N18D6	41.35	151	41.65	154
Galt	N6D2	38.98	308	39.73	317
Georgetown	N5D2	57.50	284	57.56	286
Goderich	N8D2	49.33	214	49.83	219
Grantham	N44D1	63.66	798	64.28	833
Guelph	N5D3	92.10	555	94.62	476
Haldimand	N2D8	50.33	296	57.89	318
Harriston	N8D5	23.75	73	23.75	71
Harrow	N15D4	67.59	621	68.50	645
Ingersoll	N10D3	186.29	665	181.25	680
Jordan	N44D2	35.44	380	37.09	407
Keswick	N3D5	57.49	1,020	58.10	1,063
Kingsville	N15D5	132.55	1,362	132.62	1,408
Listowel	N8D8	80.15	392	80.35	400

DETAILS OF CONSTRUCTION IN RURAL POWER DISTRICTS—Continued

NIAGARA SYSTEM—Concluded

Rural power district	Property number	At October 31, 1933		At October 31, 1934	
		Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
London	N4D2	192.58	2,078	195.77	2,157
Lucan	N4D5	33.68	124	33.68	124
Lynden	N2D2	56.57	263	54.89	250
Markham	N3D1	115.60	879	121.34	924
Merlin	N14D15	92.93	325	92.93	328
Milton	N13D3	65.20	346	68.06	347
Milverton	N8D9	41.27	187	41.42	192
Mitchell	N8D7	69.31	384	69.81	382
Newmarket	N3D4	64.41	380	65.67	400
Niagara	N1D1	48.03	309	49.13	316
Norwich	N10D1	108.77	484	111.89	488
Oil Springs	N18D3	20.81	114	20.81	114
Palmerston	N8D6	38.06	138	38.06	138
Petrolia	N18D5	14.98	59	14.98	59
Preston	N6D1	143.86	1,000	145.80	1,035
Ridgetown	N14D2	104.62	698	104.88	711
St. Marys	N9D1	115.01	454	115.60	452
St. Jacobs	N7D2	68.92	383	69.94	388
St. Thomas	N11D1	164.50	1,149	168.42	1,155
Saltfleet	N17D1	93.40	1,546	94.07	1,534
Sandwich	N15D1	128.43	2,074	129.53	2,057
Sarnia	N18D4	87.59	1,185	87.78	1,209
Scarboro	N3D2	82.91	736	86.56	793
Seaforth	N8D10	16.60	157	16.60	155
Simcoe	N12D6	73.92	387	74.52	402
Stamford	N44D4	12.37	288	8.37	291
Stratford	N8D4	37.17	226	37.17	229
Strathroy	N4D4	78.70	250	78.95	258
Streetsville	N13D1	104.19	466	104.49	467
Tavistock	N8D1	80.53	321	81.33	329
Thamesville	N14D11	68.06	274	68.31	277
Tilbury	N14D14	63.34	273	63.34	276
Tillsonburg	N10D4	111.03	574	114.66	603
Wallaceburg	N14D13	85.29	545	86.52	559
Walsingham	N12D7	88.43	481	107.56	552
Walton	N8D3	42.87	281	42.87	277
Waterdown	N2D3	69.53	921	71.03	935
Waterford	N12D3	70.65	335	71.31	331
Watford	N18D7	17.55	57	17.75	57
Welland	N1D5	281.39	2,627	286.50	2,687
Woodbridge	N16D1	195.96	1,008	197.69	1,016
Woodstock	N10D2	127.02	642	129.47	656

DETAILS OF CONSTRUCTION IN RURAL POWER DISTRICTS—Continued

Rural power district	Property number	At October 31, 1933		At October 31, 1934	
		Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
GEORGIAN BAY SYSTEM					
Severn District					
Alliston	S32D1	23.57	148	23.57	148
Barrie	S4D1	60.88	480	61.10	500
Beeton	S33D1	1.80	5	1.80	5
Bradford	S37D1	27.07	86	27.07	88
Buckskin	S24D1	1.20	17	1.20	16
Cookstown	S35D1	0.50	2	0.50	2
Creemore	S10D2	29.87	135	30.12	135
Elmvale	S7D1	25.50	158	25.50	160
Hawkestone	S9D1	26.80	160	28.95	178
Innisfil	S31D1	28.43	504	29.08	587
Medonte	S18D1	9.31	55	9.14	55
Midland	S1D1	12.13	43	12.23	43
Nottawasaga	S5D1	7.89	93	8.22	98
Thornton	S36D1	8.00	30	8.00	30
Wasaga Beach	S10D1	16.45	603	16.68	631
Eugenia District					
Arthur	E13D2	2.40	9	2.40	10
Bruce	E19D1	57.87	265	60.35	279
Chatsworth	E3D1	0.00	22	0.00	22
Flesherton	E1D1	2.60	39	2.60	38
Holstein	E7D1	0.50	9	0.50	8
Lucknow	E24D1	0.11	2	0.11	2
Markdale	E1D2	19.60	85	20.70	89
Meaford	E14D1	1.00	5	1.00	5
Neustadt	E8D1	0.50	4	0.50	4
Orangeville	E12D1	22.50	93	22.88	93
Owen Sound	E2D1	5.62	40	5.52	50
Ripley	E24D2	4.32	14	4.32	13
Shelburne	E10D1	18.44	53	18.44	56
Sauble	E46D1	10.00	46	11.45	56
Tara	E15D1	25.75	112	25.75	115
Wroxeter	E22D1	35.95	274	35.95	278
Wasdells District					
Beaverton	W2D1	27.02	330	27.26	337
Cannington	W3D1	9.15	52	10.09	50
Mariposa	W9D1	47.39	312	48.19	323
Port Perry	W12D1	49.09	358	49.42	375
Sparrow Lake	W1D1	32.55	254	34.34	255
Uxbridge	W11D1	62.15	228	62.15	230
Muskoka District					
Beaumaris	M7D1	24.66	231	29.25	252
Baysville	M10D1	31.25	134	32.23	150
Gravenhurst	M4D1	2.30	13	2.90	21
Huntsville	M2D1	27.20	99	28.70	106
Utterson	M8D1	19.71	115	21.61	127
Bala District					
Bala	GB13D1	35.55	222	41.27	252

DETAILS OF CONSTRUCTION IN RURAL POWER DISTRICTS—Continued

Rural power district	Property number	At October 31, 1933		At October 31, 1934	
		Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
EASTERN ONTARIO SYSTEM					
Central Ontario District					
Belleville	C38D1	84.28	680	85.00	694
Bowmanville	C23D1	28.93	131	29.16	132
Brighton	C6D1	10.15	62	10.65	62
Campbellford	C11D1	21.50	79	21.59	81
Cobourg	C13D1	94.01	458	97.22	484
Colborne	C7D1	31.37	160	36.75	222
Fenelon Falls	C30D1	19.32	127	24.24	140
Kingston	C44D1	122.00	730	122.49	765
Lakefield	C18D1	25.37	97	28.59	112
Lindsay	C29D1	20.23	120	21.35	137
Millbrook	C25D1	19.08	113	20.73	129
Napanee	C43D1	110.35	539	110.22	548
Newcastle	C22D1	27.08	121	29.45	129
Norwood	C31D1	7.70	61	8.03	63
Oshawa	C24D1	113.68	1,509	117.86	1,552
Omemee	C26D1	3.00	2	5.22	11
Peterboro	C20D1	62.90	1,072	63.84	1,108
Stirling	C35D1	27.81	110	27.81	114
Trenton	C3D1	41.55	201	42.82	206
Warkworth	C49D1	0.40	6	0.40	6
Wellington	C45D1	89.88	390	90.61	399
St. Lawrence District					
Alexandria	L15D1	20.33	106	20.33	107
Brockville	L3D1	96.71	664	99.17	673
Chesterville	L5D1	47.52	349	47.82	353
Iroquois	L9D1	90.42	434	90.42	437
Martintown	L13D1	21.79	142	23.66	145
Maxville	L14D2	62.07	384	62.07	394
Prescott	L2D1	37.07	201	37.07	206
Williamsburg	L7D1	17.61	100	17.95	108
Rideau District					
Carleton Place	H5D1	0.50	2	0.50	2
Kemptville	H9D1	5.43	44	5.43	44
Perth	H2D1	15.07	59	15.92	76
Smiths Falls	H3D1	54.53	353	55.55	364
Madawaska District					
Arnprior	QM10D1	4.97	55	4.97	53
Renfrew	QM16D1	5.12	10	6.24	10
Ottawa District					
Nepean	T1D1	181.87	1,092	183.84	1,127
THUNDER BAY SYSTEM					
Fort William	P10D1	48.63	143	51.41	157
Port Arthur	P2D1	29.67	119	29.55	132

DETAILS OF CONSTRUCTION IN RURAL POWER DISTRICTS—Concluded

Rural power district	Property number	At October 31, 1933		At October 31, 1934	
		Miles of primary line constructed	Number of consumers receiving service	Miles of primary line constructed	Number of consumers receiving service
MANITOULIN RURAL POWER DISTRICT					
Manitoulin	FM1D1	37.25	180	37.25	184
NORTHERN ONTARIO PROPERTIES					
Nipissing District					
North Bay	Z4D1	8.82	302	11.37	340
Powassan	Z8D1	3.25	11	3.25	12

APPENDIX IV

ROYAL COMMISSION RE ABITIBI INQUIRY

REPORT OF COMMISSIONERS

To His Honour the Lieutenant-Governor of the
Province of Ontario, in Council:

We, the undersigned Francis Robert Latchford, Chief Justice in Appeal of the Supreme Court of Ontario, and Robert Smith, a retired Justice of the Supreme Court of Canada, have the honour to report as follows:—

That pursuant to Chapter 20 of the Revised Statutes of Ontario, 1927, entitled "The Public Inquiries Act" we were appointed by a Royal Commission dated July 12, 1934, with all the powers authorized by the said Act,—

> "To inquire into the purchase of the bonds of the Ontario Power "Service Corporation by the Hydro-Electric Power Commission of "Ontario and the Government of Ontario, and the payment therefor "in the bonds of the Hydro-Electric Power Commission of Ontario, "and all the circumstances connected therewith.
>
> "And without restricting the generality of the foregoing, to inquire "into all arrangements, contracts and agreements and all circumstances connected with the granting by the Province of Ontario of "power rights on the Abitibi River, to the Ontario Power Service "Corporation, or its predecessors, and the acquiring of the same by "the said Ontario Power Service Corporation and its predecessors.
>
> "And to inquire into the purchase of power by the Hydro-Electric "Power Commission of Ontario from the Ontario Power Service "Corporation, or its predecessors, and into any or all guarantees given "by the Province of Ontario, to the Hydro-Electric Power Commission "of Ontario, or the Ontario Power Service Corporation, in connection "therewith, and into all arrangements, undertakings and agreements "between the said Ontario Power Service Corporation, the Hydro-"Electric Power Commission of Ontario and the Government of "Ontario. And to inquire into the transactions and dealings in securi-"ties of the Ontario Power Service Corporation, the Abitibi Power

> "and Paper Company, Limited, and in securities of all other Corporations dealing in power in the Dominion of Canada, which have had "dealings with the Hydro-Electric Power Commission, or the Province "of Ontario, by any former member of the Executive Council of "Ontario and by any former member of the Hydro-Electric Power "Commission of Ontario, and by the officers, servants and agents "of any of the aforesaid bodies, or members thereof, and by any and "all Corporations of which they, or any of them, were, or are officers "or directors, and by all persons and Corporations having such 'activities, transactions and dealings with the above named.
>
> "And into all acts done and steps taken by any and all persons in promotion of, preparation for, carrying out of, or in pursuance of, the "matters and things above mentioned, and into the propriety thereof.
>
> "To report the evidence and facts brought out by the within investigation, together with your findings and recommendations."

We opened the Commission at the Hydro-Electric Power Commission Board Room in Toronto on July 13th, at 10.00 a.m. The Honourable A. W. Roebuck, K.C., Attorney-General for Ontario, was present and informed us that the Government of the Province had appointed as its counsel Mr. Arthur G. Slaght, K. C., and the Honourable T. B. McQuesten, Minister of Highways, who was also present, stated that the Hydro-Electric Power Commission would be represented by Mr. J. C. McRuer, K. C. We then appointed Mr. F. J. MacRae, Barrister of Toronto, to act as Registrar.

The Chairman announced that all meetings would be held in public, and that the fullest facilities would be accorded to the public for presenting in evidence all matters within the scope of the Commission.

The Attorney-General further informed the Commission that the largest room available for the sittings of the Commission was the Master's court room at Osgoode Hall, which, with the consent of the Master, would be at the Commission's disposal.

The Commission then adjourned to the Master's court room, where the proceedings were resumed at 12.00 o'clock noon.

There were then present the Honourable Mr. Roebuck, the Honourable Mr. McQuesten, Mr. A. G. Slaght, with Mr. Eric Cross as his assistant. Mr. J. C. McRuer and Mr. A. G. Harvie appeared for the Hydro-Electric Power Commission of Ontario.

Mr. Sydney W. Brown of the reporting staff of the Supreme Court of Ontario was appointed to record the proceedings.

The Chairman again stated that the Commission would welcome any testimony that members of the public could give which would be pertinent to the scope of the Commission. He also said it was not intended to proceed further on that day, and that when the Commission adjourned, as it did shortly afterwards, it would stand adjourned until Tuesday, July 17, at 2.00 o'clock, p.m.

Subsequently the Commission sat on the 17th, 18th, 19th, 24th, 25th, and 26th July, and on the 1st, 2nd, 3rd, 14th, 15th, 16th, 17th, 21st, 22nd and 23rd August. Many witnesses were heard, including Mr. Louis V. Rorke, Surveyor-General of Ontario, the Honourable J. R. Cooke, the Honourable George S.

Henry, the Honourable William H. Price, the Right Honourable Arthur Meighen, and Mr. William H. Smith, a director and Secretary-Treasurer of the Abitibi Power & Paper Company.

On July 17 Mr. F. H. Gordon, K. C., of Regina, Saskatchewan, appeared and asked that counsel should be provided at the expense of the Province to represent the retired members of the Hydro Commission in their official capacity. Mr. Slaght for the Province declined to recommend the appointment requested, and the Commissioners had no power to authorize it to be made.

On the 24th July Mr. W. N. Tilley, K. C., appeared for the members of the late Administration, and Mr. R. P. Locke, K. C., appeared on behalf of the Honourable George S. Henry personally.

So far as appears material the testimony of the principal witnesses called will be referred to later.

Towards the end of June, 1926, as a result of negotiations between representatives of the Abitibi Power and Paper Company and members of the Government, Sir William Hearst was authorized by the Government to prepare a lease of the Abitibi Canyon to a company called the "Hudson's Bay Power Company."

As the site was the property of the Province, negotiations for its acquisition were necessarily wholly conducted with members of the Provincial Government. The Hydro Commission was not directly concerned.

Indications of what was going on are afforded in the very moderate bill which Messrs. Hearst & Hearst later presented for their services to the Crown. It is headed: "re Abitibi Canyon Lease" and is stated to include "all services from June, 1926, to December, 1926." Such services are set forth as follows:

> "Receiving instructions to prepare and settle lease of Abitibi water "power. Consultations with Prime Minister, Consultations with Mr. "Rorke. Many consultations and conferences with Mr. F. G. Kilmer, "K. C., counsel for the lessee, as to special terms and provisions "embodied in lease. Preparing, revising, settling and engrossing form "of special lease."

The Prime Minister at the time was the Honourable George H. Ferguson.

An Order-in-Council relating to the lease was made on the 11th November, 1926. It was stated that having had under consideration the report of the Honourable George S. Henry for the Minister of Lands and Forests recommending that a lease be granted of the Canyon power to the Hudson's Bay Power Company Limited, such lease was approved.

Mr. Henry deposed (Ev. p. 189) that he had acted on a report made by the Department of Lands and Forests, of which he was head in the temporary absence from the city of the Minister, the Honourable Mr. Finlayson.

The lease is in evidence. It is not made to the Company on behalf of which Mr. Kilmer applied for it, but to a subsidiary of that Company formed just before the lease was executed. The Ontario Gazette of November 27, 1926, published the statutory notice that on November 5, five solicitors were incorporated by Letters Patent as the Hudson's Bay Power Company, Limited. All these gentlemen were members of the Kilmer firm.

The stated purpose and objects of the new company were to manufacture, produce, sell, etc., gas and electricity, and to carry on the business of a water, light, heat and power company; other purposes were to be as set forth in the charter. The capital was $40,000, "without any nominal or par value," and the incorporators were to be the provisional directors.

The lessee covenanted to incur obligations which involved the primary expenditure of millions for development of power, and the installation of water wheels, plant and machinery for the production and transmission of power. This was, it is true, to be based on a bona fide demand for power *in excess of the quantity developed and utilized* by the said lessee, which might be in whole or in part supplied from the water privilege. On default, the Lieutenant-Governor in Council might order and direct that the lease should be forfeited and cancelled. Such cancellation, however, should not affect the lessee's rights to any fully developed power already made.

Apart from a small rental in the earlier years the company was to pay one dollar per annum for each electrical horse power *generated and used*. The minimum amount so payable in any one year, beginning the sixth year of the term of twenty years from the 6th November, 1926, was $20,000 a year.

There were other substantial obligations covenanted to be performed by the lessee, such as, that it was bound on three months' notice to sell and deliver to any municipal or other corporation or to any person, etc., requiring the same power up to 40% of the amount of power developed. The prices to be paid per horsepower were to be such as might be agreed upon between the lessee and the purchaser, or, failing an agreement, such as should be fixed by the Minister or in the manner he might direct.

Another important section of the lease is numbered 24. It provides that within eighteen months from the date of the lease—that is, prior to May 11, 1928—plans prepared by a duly qualified engineer showing the manner in which the lessee proposed to develop the water privilege thereby demised, and also a plan and description showing what lands, if any, would be required in carrying out such development other than the area described in the lease, should be filed with the Department of Lands and Forests of the Province of Ontario. The Order-in-Council ratifying the lease states that the lessee had represented to the Crown that it was about to commence the development of the water privileges situate on the lands demised. No actual development was begun until more than four years later when, as appears by an Order-in-Council of July 9, 1930, it is stated that the Hudson's Bay Power Company had represented to the Crown that it was *about to commence* the development of the water privileges situate on the lands demised to the full capacity of approximately 275,000 H. P. at an estimated cost of $20,000,000. The order provided for an extension of the term of the lease and certain modifications and changes in its terms, which will be referred to later. The purpose is declared to be that the company "shall be enabled to finance the said development."

When the negotiations for the lease were completed or were approaching completion, all its issued capital—$20,020 of the $40,000—was held by the Abitibi Company. Apart from the dollar subscribed from each of the five applicants for incorporation, only $1,500 had formed the assets of the Hudson's Bay Power Company. It was to this company with virtually no assets that the lease of the Abitibi Canyon was made by the provincial government as provided by the Order-in-Council of the 11th November, 1926.

It does not appear that any inquiry was made by the Government as to the capacity of the Hudson's Bay Power Company to construct the work specified and to perform the covenants which the lease imposed. Had such inquiry been made it would have been found, of course, that the lessee had no assets whatever enabling it to perform its covenants.

No guarantee of performance by its subsidiary of the obligations of the lease was exacted by the Government from the Abitibi Company.

By the terms of the lease of the Abitibi Canyon power site dated November 11th, 1926, the Hudson's Bay Power Company was obliged to develop power set out in the lease and certain preparatory surveys were made.

In the meantime the Hydro Engineers had made a study of the probable future requirements in connection with power development in the northerly part of the Province as set out in two letters dated August 29th, 1928, and March 1st, 1929, from the then Chairman of the Hydro Commission, Mr. C. A. Magrath to the Hon. G. H. Ferguson, the Prime Minister. In one of such letters, Mr. Magrath thought the Hydro Commission should be permitted to consult with the Departments of the Province controlling the timber and minerals, and expressed the view that the announcement of "a policy for Northern Ontario" that is, to the southern part of Northern Ontario "would be met with very considerable approval throughout the Province."

Prior to these letters various studies were being made by these engineers as to the most suitable locations for development of power and the plan referred to in Mr. Magrath's letters with various power sites marked shows in dotted lines the proposed transmission lines. This plan was originally prepared in connection with a report made by Mr. Gaby. It covered in a general way the territory from Mattawa westward through North Bay, Sturgeon Falls and Sudbury to Spanish River and Mississagi River, a distance of 225 miles.

Intimation of the Hudson's Bay Power Company's desire to develop the Abitibi Power site seems first to have reached the Hydro Commission in a letter dated 25th May, 1929, from Alexander Smith to Mr. Magrath in which he states that Hudson's Bay Power Company had practically completed its survey and preliminary engineering in reference to the development of its canyon power site on the Abitibi River, and, that as a result of its intensive study of this power site over a period of nearly three years, that Company is now in a position to make and hereby does make a formal proposal to sell to the Commission a minimum of 100,000 H. P. on the terms and conditions which may be shortly stated as follows:

The power to be developed would be approximately 184,000 H. P., the contract to be for thirty years, delivery at Hunta at $15.00 per horse power to begin October 1, 1931.

About that time the Commission had certain enquiries from power customers in the Sudbury District for comparatively large blocks of power in addition to what was then being supplied from the Commission's Wanapitei plant which was already about loaded to capacity. These enquiries were from mining companies in and around Sudbury, the principal one being the International Nickel Company.

Mr. Jeffrey in a report, (Ex. 72), dated January 15th, 1930, states that the engineers' reports show that the Mississagi developments provided the most economical power for the Sudbury District because sites on the Upper Ottawa and Abitibi involved developments in large blocks while the Mississagi sites lent themselves to development in stages, as additional power might be required.

Mr. Gaby dealt with Mr. Smith's first proposals in a memorandum to the Commission dated 21st January, 1930, in reference to an application of the International Nickel Company for a supply of 16,000 H. P. and possibly that of Canadian Industries for 6,000 H. P. This memorandum states that on additional information from Mr. Smith the Abitibi Company proposes to develop 200,000 H. P. at Canyon Falls at a cost, plus storage, transmission line to Hunta and contingencies, of $20,182,000 and to supply power to the Commission on the basis of the Company making the complete development of 200,000 H. P., the Commission to pay the entire cost of the development plus transmission based on 100,000 H. P. contract, a credit being made by the Company for the use of the second 100,000 H. P. for the operation of steam boilers at a rate of $8.00 per H. P.

Dealing with this, the memorandum states:

"Our calculations show that this proposition would be higher than the rate from the Abitibi Development previously submitted, calculated on the basis of $15.00 per H. P. for power purchased from Hunta. From these estimates it would appear that on the basis of the power demands, which it is expected will arise from time to time in this District, the most economical source of supply would be Mississagi River Developments, which Developments can be constructed as required to meet the growing power demands."

The memorandum therefore recommends an agreement with the International Nickel Company and Canadian Industries for the supply of power at the rates and under the conditions set out, and then states for further reasons that it is important that the Mississagi River be freed from claims other than those of the Crown.

Up to 21st January, 1930, Mr. Gaby and Mr. Jeffrey, therefore, had no doubt that Mississagi River Development should be adopted and Mr. Smith's proposal for the Abitibi Development rejected.

The scheme of development in stages laid down by the Hydro Engineers and mapped out in Mr. Magrath's letters, in so far at least as Sudbury District was concerned, was completely and suddenly abandoned in 1930 and a scheme was adopted through negotiations carried on between Alexander Smith, acting as President of both the Abitibi Power and Paper Company and the Hudson's Bay Power Company, and the Government which involved a large single development of 275,000 H. P. at the Abitibi Canyon Site of which the Hudson's Bay Power Company held the lease of 1926.

There is little evidence as to these negotiations between Smith and the Government beyond the fact that they took place in 1929 and the early part of 1930 and resulted in the change of view on the part of the Commission and its engineers referred to, and in the contract dated April 10th, 1930, (called the Power Contract), by which the Hydro Commission agreed to purchase from the Hudson's Bay Power Company 100,000 H. P. from the Abitibi Canyon.

As a basis for the change resolved upon through the negotiations between Mr. Smith and the Government, Mr. Jeffrey was called upon to make his report of 9th April, 1930, at the instance of his Superior Officer, Mr. Gaby.

The report sets out that the Commission has applications for blocks of power to the following customers in Sudbury District namely, International Nickel Company, Canadian Industries, Treadwell Yukon Company, Falconbridge Nickel Company, Abitibi Power and Paper Company at Espanola and the Town of Sudbury. The report purported to show that power could be more cheaply supplied for Sudbury from Abitibi than from Mississagi, the rate being $22.60 per H. P. from Abitibi and $22.96 per H. P. from Mississagi. The rate, however, quoted for Abitibi was based on a full load of 100,000 H. P. from Abitibi for forty years. Mr. Gaby, the Commissioners and the Government were not misled by this comparison, because all knew that the utmost usable load from Abitibi that could be foreseen by the Hydro engineers for years to come was 55,000 H. P. The report was manifestly submitted to provide a basis for the contract dated next day, April 10th, 1930, by which the Hydro Commission agreed to purchase from the Hudson's Bay Power Company 100,000 H. P. at $13.00 per H. P. as Mr. Smith had requested on May 25th, 1929.

In the minutes of the Commission of its meeting the following day, April 11th, it is stated that the matter of the purchase of 100,000 H. P. was fully discussed with Commissioner Cooke and Alexander Smith, and that "representatives of several mining corporations in the Subdury District have approached the Commission from time to time wishing to know to what extent it would be able to take care of their prospective needs, and in view of the great mining possibilities of that District this matter has been receiving fairly close study for the past six months or more." The minutes go on to say that "A contract of this character is of very great importance to the Sudbury area. It makes available at the earliest possible moment a large amount of power, a most important factor in the opening up of the northern part of the Province.

It was therefore decided to enter into a contract with Hudson's Bay Power Company for the supply of 100,000 H. P."

All this was set out in the minutes like the Jeffrey Report of April 9th, 1930, to supply grounds for entering into the power contract dated April 10th, 1930, that Alexander Smith had already arranged for.

Mr. Jeffrey's report of April 9th, 1930, states that a supplemental agreement is to be entered into between the Hydro Electric Power Commission and the Abitibi Electric Power Development Company, a subsidiary of the Abitibi Power and Paper Company, whereby the former Company will purchase from the Commission 35,000 H. P. for a period of ten years from 1st October, 1931.

This agreement is mentioned in the minutes of the Commission of April 11th, 1930, but on December 1st this was changed to an undertaking to the Government by the Abitibi Electric Power and Development Company by which the Company covenanted that on or before the 12th day of October, 1931, if called upon by the Commission in writing so to do, it would enter into a contract with the Commission for the purchase of 35,000 H. P. A notice in writing pursuant to this undertaking was given and a contract dated 1st October, 1931, for the purchase from Hydro of the 35,000 H. P. for 40 years was made but not executed until January 6th, 1932.

In connection with the contract of April 10th, 1930, for purchase by the Commission of 100,000 H. P. and resale of 35,000 H. P. of that 100,000 H. P. to the Abitibi Electric Power and Development Company, there was brought about an amendment to the lease which was discussed by the Commission at the meeting of May 7th, 1930, when it was decided to write to the Prime Minister stating, "that in view of the large development taking place in the extreme northern part of the province, and its great importance in aiding in the development of that section of the Province, the Commission would appreciate the Ontario Government relieving the Company of the annual rental (under the original lease of $1.00 per horse power) on this 100,000 H. P. during the 10 years following the first taking of the power by the Commission."

In point of fact, no "large development was taking place in the extreme northern part of the province", and no large developments were in contemplation anywhere in the extreme north, but only in the Sudbury District far to the south. Even at the present time no industry of any kind has been developed in the extreme north of Ontario.

Referring to the decision of the Hydro Commission, Mr. Magrath immediately wrote to Mr. Ferguson, stating that "realizing the importance of power service for the development of Northern Ontario, the Commission had been negotiating for some considerable time with Mr. Alexander Smith representing the Hudson's Bay Power Company." Neither the letter nor the minutes of April 11th, 1930, refer to any requirement for power in the *extreme* north, but to the enquiries and recent demands for power in the Sudbury District referred to in the minutes and the letter. The Sudbury District is not anywhere in the extreme north but nearly 250 miles south of the Canyon.

At Sudbury the International Nickel had applied to the Commission for 15,000 H. P. with possibly 6,000 H. P. additional for an allied company. This application was considered by the Chairman to afford the first opportunity enabling the Commission to provide the north country with considerable quantities of power. The letter adds that: "Our difficulty was to find a sufficient load to justify the development of a large block of power in that part of the Province . . . . . further, in view of the long transmission line that would have to be constructed, we were faced with the difficulty of working out a figure that would justify the Hudson's Bay Power Company in proceeding with such development and at the same time furnish power to the Commission at a satisfactory price."

Then he states, that in the discussion that took place, the Commission had been able to reach a satisfactory price and terms with the Hudson's Bay Company, provided the Government, "in the interests of the general expansion and importance of Northern Ontario, will refrain from charging rental on the 100,000 H. P. being contracted for, until that load is built up, or, say, for a period of ten years following the first taking of the power by the Commission."

"This matter has already been discussed with you, and you were good enough to say that you believe your Government would be willing to grant this concession, in order to enable the Commission to complete the Contract."

As Mr. Tilley argued, Mr. Magrath "sounded the Prime Minister first to see whether it (the reduction in rent) would be acceptable to him, and then, having found that he thought his Government would approve of it, it was put formally before the Commission and formally in a letter to the Prime Minister for him to take up."

With both the Hydro Commission and the Premier of Ontario concurring in the view that the rental should be reduced to the extent stated, the lease of 1926 was amended in the respects desired by Alexander Smith, by an agreement dated July 9th, 1930. This appears to have been sanctioned by Order-in-Council on a report made by Mr. Ferguson. After setting forth that the lessee is about to commence the development of the Canyon to its full capacity of 275,000 H. P. at a cost in excess of twenty millions "and having applied for an extension of the term of the said lease and certain modifications and changes in the terms of the said lease in order to enable it to finance the said development," it was expedient to grant the application and it was granted accordingly and the lease was amended so that to the extent of the 100,000 H. P. purchased no rent should be paid by the lessee for ten years.

A contract dated 4th June, 1930, was made between the Abitibi Power and Paper Company and the Commission by which the Company guaranteed that the Hudson's Bay Power Company will perform all its covenants with the Commission contained in the power contract dated April 10th, 1930.

The Power Contract was authorized by Order-in-Council dated 9th July, 1930. Up to that time the prospective demands for power mentioned in Mr. Jeffrey's report of April 9th, 1930, in the minutes of April 11th, 1930, and in Mr. Magrath's letter to Mr. Ferguson of May 7th, 1930, had resulted in only two contracts, one from the Abitibi Power and Paper Company itself for 10,000 H.P., to be used at its Espanola mill, and one from International Nickel Company for 16,000 H. P. at or near Sudbury. The only further prospect was for the sale of 6,000 H. P. to Canadian Industries, but this never materialized. There was unsold at this date 74,000 H. P., 48,000 H. P. of which was due for delivery in 1932-1933, the amount increasing yearly until the full 100,000 H. P. would become due for delivery in 1937. This would entail a yearly loss to the Commission, including $50,000.00 yearly for transmission and other costs, of $760,000.00 in 1932-33 and running up to $962,000.00 in 1937, unless further contracts for sale of power should be secured and unless a contract for the sale of 35,000 H. P. to Abitibi Electric Power and Development Company should be entered into.

This, as it worked out up to July 9th, 1930, was the solution of the difficulties concerning load and satisfactory price that confronted the Commission referred to in Mr. Magrath's letter of 7th May, 1930.

The Commission, as mentioned, had agreed to sell to Abitibi Power and Paper Company 10,000 H. P. and to International Nickel Company 16,000 H. P. and to provide for this latter amount and the prospective sale of 6,000 H. P. and possible further sales, a contract was made July 4th, 1930, with Abitibi Electric Power and Development Company, pending the development at the Canyon, for a temporary supply of 25,000 H. P. Of this the sale of the 16,000 H. P. only materialized, and the Commission was left with the balance of 9,000 H. P. on hand which entailed a loss of $117,000.00.

These complicated preliminary arrangements having been made, the Hudson's Bay Power Company proceeded to raise the required funds for its proposed development by a bond floatation of $20,000,000 secured by a Trust Mortgage on the lease, the proposed development, the Hydro Commission contract for 100,000 H. P. and the contract of the Abitibi Power and Paper Company to buy from the Ontario Power Service Corporation all the power over the amount to be purchased under the Hydro contract.

The first attempt at floating the $20,000,000 bond issue failed. Before making a second attempt, it was deemed advisable to change the name of the Hudson's Bay Power Company by Letters Patent and substitute the name "Ontario Power Service Corporation." This was done on July 30, 1930. Bonds for $20,000,000 were issued in the new name of the old company and bought by Wood Gundy and Company, realizing $17,917,100. The development then commenced and was carried on until the proceeds of the bond sale were becoming exhausted. In February or March, 1932, Mr. Smith intimated to Mr. Cooke, Chairman of the Hydro Commission, and to Mr. Henry, who had become Premier of Ontario, that these Companies were unable to secure the money necessary to complete the development or meet the next payment of interest falling due on the bonds, and applied for help from the Government.

Mr. Henry resolved to await the close of the pending Session of the Legislature before dealing with the situation which had developed. A new chapter in the history of the Abitibi Canyon development then commences, but some comment must first be made on that which has just closed.

The circumstances recited above show that it was after full investigation and consideration that the Hydro Commission and its engineers came to the conclusion, for what would seem to have been convincing reasons, that Mississagi development would afford the most economical source of power for the Sudbury District, and therefore rejected a proposal for development at the Abitibi Canyon because that development could only be made in one large block of 275,000 H. P. at a cost of more than $20,000,000.00 with no prospective market on the most optimistic view of the matter, for the sale of more than 50,000 to 55,000 H. P. and would require the construction of a transmission line to Hunta by the Ontario Power Service Corporation and thence to Sudbury by the Hydro Commission, a distance of about 180 miles, for the most part through uninhabited country, at an estimated cost to the Commission of $3,000,000 or $4,000,000.

With all this in plain view, Mr. Smith's negotiations with the Government brought about the abandonment of the scheme of development that the Commission and its engineers had concluded to be the most economical and the adoption of the large and expensive development at Abitibi Canyon.

As previously stated there is little direct evidence as to the negotiations between Mr. Smith and the Government that induced the Hydro Commission to enter into the contracts that enabled the Ontario Power Service Corporation to float its bond issue and proceed with the Abitibi Canyon development.

A report made by Mr. Clarkson in March, 1932, sets forth that, while the Hydro Commission was in 1930 giving consideration to the requests for power at Sudbury and considering the plan for securing it from Mississagi, the Abitibi Power and Paper Company intimated that it desired to develop the

Abitibi power and requested that the Commission consider taking a supply for Sudbury from this development, and, "as is reported", the Government intimated to the Commission that the Government was anxious to have a supply of cheap power afforded for the development of Northern Ontario, in view of which, and in order to facilitate provision of the same, the Government was favourable to the making of a contract between the Commission and Abitibi Power and Paper Company.

It was estimated that a demand would exist for upwards of 42,000 H. P. for Sudbury District and would increase in two years to 50,000 H. P. and that accordingly the Commission was desirous of limiting the amount of power to be contracted for to 65,000 H. P. "A contract on such a footing, was however—as is reported—unsuitable to Abitibi Power and Paper Company Limited, in respect to the financing of the development, and accordingly it was ultimately agreed that if the Commission would contract to buy 100,000 H. P. from Hudson's Bay Power Company Limited (now Ontario Power Service Corporation Limited) which was to construct the development, Abitibi Electric Development Company Limited (a subsidiary of Abitibi Power and Paper Company Limited) would agree to take back 35,000 H. P. of such 100,000 H. P. if the Commission should so require."

Even without the narrative in the report, the object of these two contracts, by which one subsidiary of the parent company agreed to sell 100,000 H. P. to the Commission and the other subsidiary agreed to buy back from the Commission 35,000 H. P. out of the same 100,000 H. P., can be read from the contracts themselves, though Mr. Henry and Mr. Cooke state that no such object was present to their minds.

The prospectus sent out by Wood Gundy & Company in connection with the bond issue states that the Ontario Power Service Corporation had entered into 40-year contracts, under which all of its output of electrical energy will be sold to the Hydro-Electric Power Commission and to the Abitibi Power and Paper Company, and that the latter will covenant with the Trustee that the Corporation will fully complete the installation of the five units. The Wood Gundy agreement, in the form of a letter to Alexander Smith dated July 26th, 1930, also sets out that "Abitibi Power and Paper Company Limited, by agreement with the Trustee will warrant unto the Trustee and the holders from time to time of the bonds, that the Power Company will fully complete and install said power development."

No such agreement or warranty was ever made, and no mention of such an agreement appears in the Trust Deed, so that nowhere is there any guarantee to the Trustee for completion by the Abitibi Power and Paper Company. The nearest approach to a guarantee is the agreement made by the Abitibi Power and Paper Company with the Commission dated June 4, 1930, providing that the Hudson's Bay Power Company would perform the covenants contained in the contract dated the 10th April, 1930. This was very different from a guarantee to the Trustee for the completion of the development by the Abitibi Power and Paper Company.

The purchasers of these bonds ought to have realized that they were lending $20,000,000 on a mortgage of a proposed development that, with allowance off the $20,000,000 for discount and expenses, would require at least an additional $5,000,000 to complete, and would earn the $1,300,000, less the cost of administration and operation, only when completed to the extent necessary to deliver the 100,000 H. P.

Up to that time, the bondholders had no security beyond the proceeds of their bonds, as used progressively in the development, and the contract with Hydro Commission, necessarily conditional on the production and supply of 100,000 H. P. While the Commission had a guarantee for completion of the development from Abitibi Power and Paper, the Trustee had no such guarantee and was entirely dependent on the will of the Commission for enforcement of a guarantee to which the Trustee was not a party. Assuming, however, that the Trustee would be protected through the Commission by enforcement, if necessary, of the guarantee, this protection was from the first illusory because dependent on the continued solvency of the Abitibi Company, as the Ontario Power Service Corporation had no assets of its own beyond the lease and the proceeds of the bonds, of which $2,000,000 was to be held by the Trustee pending completion of the works.

The Abitibi Power and Paper Company and the Ontario Power Service Corporation were both in financial difficulties in the early part of 1932, and went into bankruptcy soon afterwards. The bondholders were then left with no security but what could be realized from a foreclosure of the Trust mortgage and a sale under it of the uncompleted development. It is, of course, said that these bondholders had had every reason in July, 1930, to regard the Abitibi Power and Paper Company as a very powerful organization, financially capable and likely to continue capable of providing the $5,000,000 additional required.

It was first proposed that this Company should give a second mortgage, which would have been subsequent to the existing mortgage for $54,000,000, for the amounts required for completion but it was objected by the Solicitors for the Company that this would appear in the Company's financial statement and would prejudicially affect its credit. The same objection applied to a guarantee of the bonds to the Trustee or a guarantee for the completion of development by the Ontario Power Service Corporation. There was, therefore, substituted the guarantee of June 4th by the Abitibi Company to the Commission.

The representation in the prospectus that a covenant for completion of the work would be given by Abitibi Power and Paper Company to the Trustee was therefore not fulfilled. This was known to Mr. Smith and to Wood Gundy & Company before the bonds were placed on the market. There is no evidence that anything to the contrary was made known to the public.

The Clarkson report sets out that, should the Canyon development be completed by October 1st, 1932, as contemplated, the Hydro Commission would the following year be obliged to take and pay for 88,000 H. P. out of which it had contracts for sale of only 16,000 H. P. to International Nickel, 10,000 H. P. to Abitibi Power and Paper Company for its Espanola Mill and 35,000 H. P. to Abitibi Electric Power Development Company. There would, therefore, be left unsold on the hands of the Hydro Commission 27,000 H. P. at a loss of about $400,000, including approximately $50,000 for unabsorbed transmission and other costs. This would increase yearly by the price to be paid for each additional 3,000 H. P. until it would reach $560,000 in 1937. Against this loss there was the chance of increasing the sale of power out of the 100,000 H. P.

However, the prospective applications mentioned in Mr. Jeffrey's report of April 9th, 1930, had resulted, as previously stated, in only the two sales of 16,000 H. P. to International Nickel and 10,000 H. P. to Abitibi Power and Paper Company, and the contract with the Abitibi Electric Development Company for the resale of the 35,000 H. P., which was not signed until the 6th of January, 1932, when it and the parent company, the Abitibi Power and Paper Company, were on the verge of bankruptcy.

No other sales resulted from the contract dated April 10th, 1930, up to the Order-in-Council of July 9th, 1930, and none had been secured up to the presentation of the Clarkson report on March 19th, 1932.

Mr. Clarkson made several suggestions which he thought would be practicable and ended his report with the obvious conclusion that completion of the Canyon Development and the ability of the Abitibi Power and Paper Company to avoid financial difficulties were "matters of the most serious importance to the Province of Ontario."

Mr. Henry succeeded Honourable G. H. Ferguson as Premier of Ontario, in December, 1930. He had had, as his evidence shows, little or nothing to do with the negotiations culminating in the agreements previously made.

He recalled that an amendment to the lease was made in 1930 by Order-in-Council of the 9th day of July, and that the new agreement eliminated a rental of $1 per horse-power for all electrical energy which the Hydro Commission purchased from the lessee. He was also aware that Hydro had bound itself for a period of 40 years to purchase 100,000 H. P. at $13.00 per H. P. He could not suggest any reason for relieving the lessees of an annual rental of $100,000 other than that the current was going into the hands of the public body.

Mr Slaght then pressed Mr. Henry as to what moved him to relieve at the expense of the Department of Lands and Forests this privately owned company to the extent of $100,000 a year, and was told, "I haven't any recollection of that detail." (Ev. 193.) When asked by Mr. Slaght to tell anything that led to a change in his mind in 1930 when as a member of the Government he was party to an amendment of the lease which relieved the Hudson's Bay Power Company of a burden of $100,000 a year, he again said, (Ev. 195) "I have no recollection with regard to the details of the amended lease."

Mr. Slaght continuing said:

> "I am not asking about the details of the amended lease. That is a "document that is in. But if you can help us with any business reason "or any justification for passing out what might be regarded as a bit "of a plum perhaps by the lessees, viz: relief of rental to the extent "of $100,000 a year by a private venture—if you can tell us anything "that moved you to be a party to that, I want to know it.
>
> A. I haven't any."

He remembered, however, that in 1930 under the contract dated April 10th, by which the Hydro Commission agreed to buy 100,000 H. P. from the Hudson's Bay Company at $13.00 per H. P., that Hydro made at that time a contract with the parent company for 10,000 H. P. to be furnished to their

Espanola plant by Hydro, and a contract with another subsidiary of the Abitibi Company that Hydro would sell it 35,000 H. P. He further remembered that the Cabinet of which he was a member approved of an Order-in-Council indemnifying Hydro against loss by reason of Hydro's entering into the 100,000 H. P. contract, "when Hydro might not have a sufficient market to absorb the whole."

Having brought these matters to the attention of Mr. Henry, Mr. Slaght asked,—

> "Now, will you give the Commission any reason that moved you or "that you can suggest moved your associates to put the neck of Hydro "and put the neck of the Government under a firm obligation for 40 "years of $1,300,000 when you had a right (under the original lease) "to take 110,000 H. P. at your own terms? What was the dominant "factor that brought about that kind of a contract?
>
> "A. I do not remember the details, or what would lead up to that.
>
> "Q. Can you give us no thought at all?
>
> "A. Well, it is difficult for me now, having lived with this problem "with regard to power in the north country for the last two years, "to know just how much I have absorbed that I did not have pre-"viously."
>
> "Q. You were aware as Minister that this privately-owned power "company which by this time, the middle of 1930, had become by "Order-in-Council known as Ontario Power Service Corporation "intended to make a public bond floatation of $20,000,000, were "you not?
>
> "A. I do not know that I remember that.
>
> "Q. Well, you bought some two weeks later. Do you mean to say "as a cabinet minister you were not aware, not informed, that part of "the plan of finance of this private corporation, Ontario Power "Service, involved a proposed issue of $20,000,000 of bonds to the "public of Ontario?
>
> "A. I would not know anything of that until it was published, how "they were going to finance themselves.
>
> "Q. Are you serious in that, Mr. Henry?
>
> "A. I think so; I have not any recollection of it.
>
> "Q. Your Cabinet had to decide whether or not you would relieve "this private company in the first place of the $100,000 annually of "rental?
>
> "A. Yes.
>
> "Q. And in those negotiations did you suggest that your Govern-"ment did not ask them or acquaint themselves at all with the pro-"posals of the parent company as to how it was going to float or "carry out the construction that they had bound themselves to "carry out?
>
> "A. I was not in negotiations with them at any time."

Mr. Slaght: (P. 206)

"Q. Now, was it in any way to help the private promoters of this "Ontario Power Service Corporation, or perhaps, putting it as what "you may agree, is more accurately, the parent company, the Abitibi "who were promoting this venture, was it to help them that you "and your confreres gave them that binding contract of April 10, "Exhibit 4?

"A. No, not that I know of.

"Q. No thought of helping the private interests at all?

"A. Hydro was desirous of getting this power.

"Q. Yes, Mr. Henry, but Hydro had the right to the power, you have "already agreed with me, by a contract back in 1926, where they "could get 110,000 H. P. at their own price. Does that make any "difference or assist your recollection in the last answer you made?

"A. No, it does not.

"Q. Because I am puzzled, and I am going to leave it very shortly, "but I want to afford you the fullest opportunity of explaining to this "Commission any other business reason in the world when Hydro "was entitled to demand and have for their own use and to pass "along 110,000 H. P. and fix the price if they wanted to themselves, "below 13, if they wanted to assuming they would be fair—any "business reason at all in 1930 to bind the Hydro Commission for "$1,300,000 for 40 years unless it was to help private promoters make "a success of their bond issue? I invite your answer to that question.

"A. I could not say."

The situation confronting Mr. Henry and the members of the Government in 1932 was of their own making when in 1930 they relieved the lessee of the Canyon from the payment of $100,000 rental annually and induced the Hydro Commission to contract to purchase from Ontario Power Service Corporation during forty years 100,000 H. P. and to pay therefor $13.00 per horse-power.

It became clear to Mr. Henry in May, 1932, that the recommendations of the Clarkson report could not be carried out because of the financial situation of the Abitibi Power and Paper Company and its subsidiaries. The parent Company was about to default on its bond interest on 1st June and Ontario Power Service Company on 1st July, 1932. The Abitibi Electric Power and Development Company has not yet been actually declared bankrupt but as shown in evidence all its property and assets are covered and involved in the bankruptcy of the parent Company so that no assets were available to meet the liability of the subsidiary to pay for the 35,000 H. P. it had agreed to buy from the Hydro Commission. Mr. Henry says the situation had thus become changed in 1932 as there was then a market for only a small part of the 100,000 H. P. As has already been pointed out the power contracted to be sold by the Commission in July, 1930, when the Hydro contract was signed was just the same as in July, 1932. In 1930 the Hydro Commission had the two contracts for sale of 16,000 H. P. and 10,000 H. P. and no more and in 1932 had the same two contracts with no additional sale except that for the 35,000 H. P. which the purchaser had no means of paying for and for which no market or use was obtained in 1930 or 1932.

The Clarkson report having been rejected in view of the financial situation of the Abitibi Companies, Mr. Henry proceeded to negotiate with the representative Committee of the bondholders. He gives as a reason for entering into the arrangement set out in his letter of 28th July, 1932, that he discovered that financiers were about to buy the uncompleted development in which event the Hydro Commission contract "would live" that is "that something might be done to enable them to complete the work that they could deliver current to the Hydro under the contract."

The Trustee for the bondholders, on default of the Ontario Power Service Corporation to complete the development, had the right to realize on their trust mortgage security by sale or foreclosure.

There was manifestly no ground for Mr. Henry's fear that financial interests might outbid him. They would have to bid the market value as determined by the Trustee's sale and then add to it the cost of completion to the extent required for delivery of the 100,000 H. P., apparently about $5,000,000.00. In addition to this, they would have to provide the penalty of 100% from 1st October, 1932, for failure to deliver the 100,000 H. P. until installation of the two units. With the delay that would necessarily result while the Trustee sale was being carried out, the penalty would have amounted to probably $2,000,000.00.

Mr. Henry says that towards the end of May, the Government had resolved to acquire the property for the Province and to purchase the Ontario Power Service bonds. The simple way to acquire the mortgaged property was to purchase at a sale by the Trustee. He could afford to wait as the Government and the Commission were in the meantime incurring no loss. By such purchase, the Province would acquire the property including the Hydro contract at the market value. The contract would be extinguished by the purchase.

There was, therefore, nothing to be feared from competitive bids from financial interests. Mr. Henry does not pretend to claim that the price of about 71 paid for the bonds, as he figures it, represented what was likely to be realized from a sale by the Trustee of the mortgage security. It represented what he says was a price that he thought fair to the bondholders and to the Government.

Neither the Government nor the Commission was under any obligation to the bondholders legal or otherwise. There was no breach of contract by the Government or the Commission. The bondholders did not get the guarantee promised in the prospectus but, as set out in the Trust Deed, got the security that they bargained for. If they saw fit to buy these bonds at a large discount, that was a speculation on their part obviously involving risk of loss. Mr. Henry does not pretend that he was agreeing to pay for the property only what it would have brought on the market, but what he thought would be fair to the bondholders and the Government. The price paid was, therefore, based on consideration for the bondholders and not on value.

No accurate value of the mortgaged property and contract can be fixed, but the market value was reflected with a fair degree of accuracy by the prevailing market value of the bonds from June 1st, 1932, when the first default in interest payment arose, up to the 25th June when Mr. Henry's newspaper announcement of that date appeared. The market price varied from about 30 to 40 during that period.

Mr. Henry, therefore, out of consideration for the bondholders, made his offer of 71 for these bonds when their value, as estimated by market quotations before any intimation had been given as to Government intervention, was not higher than 40.

The scheme for power development at Abitibi Canyon must, of course, be looked at as it appeared or ought to have appeared in the early part of 1930 when that scheme was launched. At that time, industry of all kinds was prosperous and particularly the pulp and paper and mining industries. It was, however, at that time that the scheme of the Canyon development received its strongest condemnation. Mr. Magrath's letter of 1st March, 1929, (Ex. 81), set out to the then Premier in great detail the present and prospective needs for power in Northern Ontario and the best and most economical method of providing and transmitting it. Reports and recommendations of the Hydro engineers all confirmed what Mr. Magrath had written. There was no prospective need for power development at the Canyon as it was situated in practically uninhabited country and 250 miles away from the prospective needs which could have been supplied from comparatively small developments near at hand in stages as further power might be required. In opposition to Mr. Magrath's letter and the reports and recommendations of the Hydro engineers referred to, and as a result of Mr. Smith's negotiations with the Government between January 21st and April 10th, 1930, the Abitibi Canyon scheme was adopted. An appearance of justification for it was set out in Mr. Magrath's letter of 7th May, 1930, where he refers to the satisfactory load and satisfactory price for electrical energy that had been worked out. The satisfactory load was fictitious as only a strained estimate of 55,000 H. P., at the most, could be foreseen. The satisfactory price was also fictitious and was arrived at on the basis of a full load of 100,000 H. P. for forty years when all knew that there was no load in prospect for more than 55,000 H. P. all told.

The 35,000 H. P. for purchase of which the undertaking was given to the Government was not intended or expected to be a load at all but a mere book entry as between the one subsidiary and the other and entered into, as the Clarkson reports recite and as the facts indicate, solely for the purpose of the bond floatation. It was intended to work out in effect as a contract by the Commission for the net purchase of only 65,000 H. P. Mr. Meighen's suggested parallel between the scanty earnings of the Chippawa development in the first two years and the prospective earnings of the Canyon development when started is also fictitious. The former was at a period when much was still to be learned about power transmission and distribution and was situated in the most wealthy and populous part of Ontario. The latter was remote from power requirements with opportunity for supply in ample quantity near at hand.

The negotiations proceeded and on the 25th of June, 1932, Mr. Henry announced in the press that negotiations had been going on which it was hoped would result in a scheme by which the property would be acquired by the Government.

Finally a prepared statement was published by Mr. Henry in the press of 25th July, 1932, giving reasons for the decision arrived at to offer to the bondholders $18,000,000 of Hydro Commission Government guaranteed twenty year debentures in exchange for the $20,000,000 of Power Corporation bonds. This was followed by a letter from Mr. Henry to the Chairman of the Hydro Commission dated 28th July, 1932, setting out the terms of the proposed purchase. The letter is as follows:—

"ONTARIO EXECUTIVE COUNCIL OFFICE

"July 28th, 1932.

"Honourable J. R. Cooke,
"Chairman,
"The Hydro-Electric Power Commission of Ontario,
"190 University Avenue,
"Toronto, Ontario.

"Dear Sir:

"The Government of the Province of Ontario has decided to "request the Hydro-Electric Power Commission of Ontario to make "an offer to the holders of the 5½ per cent First (Closed) Mortgage "Sinking Fund Gold Bonds of Ontario Power Service Corporation "Limited to acquire such bonds by exchanging for the same Twenty "Year Debentures of the Commission to be guaranteed by the "Province of Ontario on the basis of $90 of such Debentures for each "$100. of Bonds of Ontario Power Service Corporation, Limited, such "Debentures to be dated 1st October, 1932, and to bear interest for "five years at 3½ per cent per annum, for five years at 4 per cent per "annum, and for ten years at 5 per cent per annum, and to be redeem-"able at any time at par at the option of the Commission. I, therefore, "request that the Commission should take such steps by public "advertisement and otherwise as it may think necessary or desirable "to make the offer to the bondholders. The Government of Ontario "will indemnify the Commission against all loss, costs and expenses "in connection with the entire transaction, including the operation "and administration of the property and any extension thereof, and "will enter into a formal agreement with the Commission to this "effect, inasmuch as the expectation is that if the Commission shall "acquire sufficient Bonds it will proceed by legal steps to acquire all "the property of the Ontario Power Service Corporation Limited "covered by the Trust Deed securing the Bonds. I shall at all times "be ready to cooperate with the Commission in disposing of any "questions that may arise and will recommend any legislation that "may be necessary to give effect to our understanding.

"Yours very truly,

"(sgd) Geo. S. Henry."

In accordance with the request contained in this letter the Commission proceeded to carry out the purchase.

At a meeting on 2nd August, 1932, the Commission caused to be prepared an offer for the purchase of the bonds referred to on the terms set out in Mr. Henry's letter and passed a resolution that such offer be made and advertised and that the Secretary be instructed to apply to the Lieutenant-Governor-in-Council for an order authorizing the Commission to acquire said bonds on the terms mentioned.

On the 4th of August, 1932, the Commission passed a resolution which recommended that the Commission be authorized and empowered under the provisions of subsection (g g) of section 20 of the Power Commission Act to acquire from time to time by purchase in the open market or otherwise, these bonds, by exchanging for the same twenty year debentures of the Commission guaranteed by the Province of Ontario, of the face value of $20,000,000 on the basis of $90 of such debentures for each $100 of said bonds.

On this recommendation the order-in-council dated 16th August, 1932, was passed authorizing the purchase.

By a resolution of October the 7th, 1932, the Commission elected to purchase all the bonds deposited up to that time, although only 88% had been deposited. The evidence is that on verbal request by the Government this election was made.

The purchase was accordingly completed and the exchange made by the Hydro Commission.

The total cost of the property and development to the Commission up to June 30th, 1934, was $17,917,100.00 paid for the bonds and $1,804,770.27 since paid out, to which is to be added $2,199,308.45 the cost of the Hunta-Sudbury line and $2,290.63 for the cost of the meter station at Copper Cliff, making a total of $21,923,469.35. This leaves outstanding claims, yet to be settled. Several millions of these seem to be undisputed by the Commission, part of which is to be paid off at 70 cents on the dollar under some arrangement arrived at by the Commission.

For the eight months ending June 30th, 1934, the shortage of revenue from the development to meet charges to revenue was $389,351.81, being at the rate of $584,037.72 per year. Interest on the Hydro bonds during that period was at the initial low rate of 3½%. The rate increases to 4% in 1937 and to 5% in 1942. The capital cost will, of course, be also increased when the unsettled part of the claims will have been paid.

It cannot be determined on the evidence what amount of power is being now delivered from the development. It should have been a simple matter for Hydro officials to give the exact amount and the rates at which it was being supplied. They say that part of what is being delivered is at a rate of $4.00 per H. P. used for heating steam boilers. Such installed power as cannot be sold at a profitable rate is, of course, properly sold at $4.00 per H. P. rather than wasted.

This shows at a glance the improvidence of the original contract of 10th April, 1930, for purchase by the Commission, at the instance of the Government, of the 100,000 H. P. and not lessened but enhanced in degree by Mr. Henry's bargain, carried out by the Commission, for the purchase of the bonds.

The purchase of the Ontario Power Service bonds by the Hydro Commission was negotiated by Mr. Henry personally on behalf of the Government. He was himself the holder of $25,000.00 of these bonds and the Insurance Company of which he was a director held $200,000.00. He was precluded by this interest from taking part with propriety in the negotiations and resulting purchase.

It is argued that his personal interest and the interest of his Company was small in comparison with the public interest involved. The sum of $25,000.00 constitutes a substantial interest for an individual and $200,000.00 constitutes a substantial interest for an Insurance Company. Having then, this interest in the transaction about to be considered, Mr. Henry should have frankly disclosed his interest to his colleagues of the Cabinet and should have asked them to relieve him of the responsibility of dealing with the matter. Mr. Price, the Attorney-General, was the acting Premier in Mr. Henry's absence, and, with the other members of the Cabinet, could have been trusted with the negotiations and the decision. Mr. Henry says that he refrained from disclosing his interest because he wished to leave his colleagues untrammelled in their judgment. He, however, was Premier with the deciding voice in the negotiations and allowed his colleagues to suppose that he himself was exercising his untrammelled judgment. In fact, his judgment was liable to be biased in any case by his interest and apt to be regarded all the more as such in view of the non-disclosure of that interest.

The position taken is untenable.

At an early stage of these proceedings it was held that a member of the Hydro Commission was not precluded from holding or buying bonds of Companies that had contracts with that Commission, such as the Beauharnois or Gatineau Power Companies, so long as no questions should arise between the Commission and such Companies in connection with these contracts.

Mr. Meighen was appointed a Hydro Commissioner on the 9th day of June, 1931. There was, therefore, no impropriety on his part in holding or buying bonds of the Ontario Power Service Corporation on behalf of himself and of the Companies he represented, so long as no questions seemed likely to arise in connection with the contract dated 10th April, 1930, between that Corporation and the Commission.

Mr. Henry testifies that Mr. Lucas, solicitor for Hydro Commission, told him about the latter part of March, 1932, that there had been discussions between representatives of the Ontario Power Service Corporation and the Hydro and that Legislation would be needed if the Government was to be of any assistance to the completion of the work which was then in doubt. Mr. Henry, at that time, referred to some correspondence or memoranda from the Abitibi that he had sent to the Hydro-Electric Power Commission.

Mr. Cooke, the Chairman of the Hydro-Electric Power Commission, however, said that these discussions were between himself and Alexander Smith, who came to him during the Session in February or March, 1932, about the financial difficulties of his companies in reference to completion of the Canyon project.

Mr. Henry states that at the same time or a little later, Alexander Smith told him that the Ontario Power Service Corporation and Abitibi Power and Paper Company had not sufficient money to complete the development.

Mr. Cooke says that he saw Mr. Smith twice about the matter and made it perfectly clear to him that it was no use depending on any financial assistance from the Hydro-Electric Power Commission because "we would not have the authority to do it." He, however, discussed the matter with the Premier.

Mr. Lucas, Solicitor for the Commission, must have been consulted about these discussions because it was he who reported to Mr. Henry, that legislation would be needed if the Government was to be of any assistance to the completion of the work.

Mr. Cooke, at that time, was engaged in these discussions as Chairman of the Commission and Mr. Lucas as Solicitor for the Commission. Mr. Henry tells us that he deliberately postponed consideration of the matter until the close of the Session, and it was later that he called Mr. Cooke and Mr. Lucas with others into the negotiations.

Mr. Henry goes on to say that there followed negotiations with a committee of the bondholders in which Mr. Strachan Johnston and Mr. Clarkson represented the Government and that he has "a very clear recollection of various stages dealing with offers that we were seeking to have accepted by a representative Committee of the bondholders. The matter was carried on over a considerable period and most of it was in personal conversations with myself and the two representatives that I have mentioned who were working for us as an intermediary between the Government and this representative Committee of bondholders."

Mr. Meighen was present at all the meetings of the Commission from February to the end of August, except three, and it might be supposed that Mr. Cooke's discussions with Mr. Smith and Mr. Henry in reference to the financial difficulties of these Companies would be brought to the notice of his fellow Commissioners, particularly as it was through Mr. Lucas, the Solicitor for the Commission, that intimation came to Mr. Henry that legislation would be needed. Mr. Cooke, however, cannot recall discussing the matter with Mr. Meighen and Mr. Maguire "at all along that line as to what assistance the Government would give."

Mr. Meighen's evidence is that he never knew of the discussions in February or March between Mr. Cooke, the Chairman of the Commission, and Mr. Smith, nor of Mr. Cooke's resulting discussion of the matter with Mr. Henry, nor that it had been intimated by Mr. Lucas as Solicitor for the Commission that legislation would be necessary, nor that there were negotiations by Mr. Johnston and Mr. Clarkson at Mr. Henry's instance, with a representative Committee of the bondholders, and never knew until 29th of May, that there was likely to be default in payment of the interest on the bonds, falling due June 1st and July 1st, 1932. He says he immediately directed that purchases of Ontario Power Service bonds should cease, though he did not feel that there was any obligation for restrictions.

The Premier had, however, learned from Alexander Smith, the President of Ontario Power Service Corporation and of the Abitibi Power and Paper Co., that both companies were about to default in payment of interest on their bonds, and from the close of the Session he carried on negotiations in reference to the completion of the Ontario Power Service Corporation development and in reference to the contract with the Hydro Commission, which constituted the chief security relied on by the bondholders for payment of their interest. He called to his assistance Hon. J. R. Cooke, who was a member of his cabinet as well as Chairman of the Hydro Commission, Mr. Lucas, Mr. Gaby, Mr.

Guilfoyle of the Clarkson firm and Mr. Johnston, but nothing, it is said, was disclosed of these negotiations to the public, until Mr. Henry's newspaper announcement of June 25th, 1932.

Mr. Meighen's account of his interview with Mr. Price and the two other members of the Government extends over many pages of the evidence. He told these gentlemen of his interests. He deposed that he deemed it his duty to tell them.

Mr. Slaght asked:

> "By that you mean your personal holding?
> "A. I gave them that and I gave them the companies' holdings."

Mr. Meighen was at the time a director or manager of several financial companies, one a holding company which appears to have had as subordinates at least two trust investment companies. He also had a personal company called Erindale Finance Corporation. In this he owned all the shares.

Some securities, including a number of the bonds of the Ontario Power Service Corporation, were on deposit as collateral with a firm of New York brokers called Laidlaw & Co.

Mr. Meighen deposed that he stated to the members of the Government:

> " 'What I have come for chiefly is, this, to urge you not to unduly
> " 'delay your decision, because if you do—these bonds now selling
> " 'down in the 30's or 20's—' I forget where they were selling—'will
> " 'be sacrificed by the poorer bondholders.' "I told them we were
> "not too powerful ourselves."

He informed them that he was anxious for a decision one way or the other. "I said:

> " 'the reason is this: if you delay the result is going to be the loss of
> " 'bonds by those less able to hold,' and I made it very plain to them
> "that we were in no too strong a position ourselves."

There is a rule among brokers that if securities get below a certain price they are struck off the collateral list. He, therefore, knew that the bonds which he had put up with Laidlaw & Co. were approaching, if they had not reached, the fatal limit, in which event, his companies would be called upon to replace them by collateral of higher value and his companies, whatever their number, were not in too strong a position to meet that emergency.

His individual holding in the name of the Erindale Company was a mere $3,000, while the holding of his companies on deposit in New York as collateral was in excess of $170,000 at par.

Whatever the amount of his interests, the decision of the Government to purchase the bonds at 90 inured greatly to the benefit of himself and his companies, and that decision was reached and announced to the public on the 25th of July, when, in an official statement, Mr. Henry proclaimed that the Government had "finally decided as the most convenient way of getting "title to the property, to offer to the bondholders $18,000,000 of Hydro Commission's debentures in exchange for the $20,000,000 of outstanding bonds "of the company, subject to the condition that 90% of the issued bonds were "deposited for exchange" with the Trustee within a certain time which was later extended. About 88% of the bonds was ultimately deposited with the Trustee and exchanged for Hydro Commission bonds.

Mr. Meighen says he knew nothing of the negotiations between the bondholders and the Government. Mr. Henry's published statement of June 25th, 1932, of course came to his knowledge when published. He expected that there would be Government intervention because he regarded it as the duty of the Government to intervene.

Mr. Gundy asked Mr. Meighen to go with him and Mr. Long to interview Mr. Price, the acting Prime Minister in the absence of Mr. Henry, and on the 22nd June, 1932, obtained an interview with Mr. Price. Mr. Finlayson and Mr. McCrae were also present. Mr. Gundy and Mr. Long accompanied Mr. Meighen, but remained without during Mr. Meighen's interview. Mr. Meighen states that he made no proposition to Mr. Price with regard to what might or ought to be done beyond the request that the Government should come to a speedy decision one way or the other as to what course it should follow. Mr. Price says that he gave no intimations to Mr. Meighen as to what course would be followed.

Mr. Gundy had purchased the original bond issue and was still largely interested. He was one of the representative Committee of bondholders that had carried on the negotiations with Mr. Henry for several months. He applied to Mr. Meighen to obtain the interview with Mr. Price but, according to Mr. Meighen's evidence, just alluded to, he did not inform Mr. Meighen of the previous negotiations. His object in getting Mr. Meighen to approach Mr. Price, as acting head of the Government, was obviously to get a favorable result for the bondholders from these negotiations. Mr. Meighen, being, he says, unaware of any negotiations, deposed that he made no request or proposition to Mr. Price on behalf of the bondholders beyond asking for a speedy decision.

The bondholders on the first rumour of default would look to the contract with the Hydro Commission as their only security for payment of the bond-interest and were naturally interested in knowing what the Commission would do in connection with that contract.

Information, therefore, that Mr. Meighen as a Commissioner might have of the difficulties of the Companies concerned and of the fact of pending negotiations with the Government that might affect the carrying out, modification or cancellation of this contract would place him in a better position as a bondholder than that occupied by other bondholders. His testimony, however, as stated, is that he had no actual knowledge, until the announcement made by Mr. Henry in the press on June 25th, 1932, of the fact that negotiations were going on. The interview with Mr. Price on 22nd June, 1932, he says, did not disclose to him knowledge of that fact.

He states that he made no purchases or sales of these bonds for himself or his companies from 29th May, 1932, until the publication of Mr. Henry's offer on the 25th day of July, 1932, except the $5,000. purchased by a clerk without his knowledge and contrary to his orders. From the latter date he considered himself as free as others to purchase or sell these bonds in view of the terms of Mr. Henry's published offer and proceeded at once to deal in these bonds on behalf of his Companies.

He bought for example:

for Fourth Canadian General Investment Trusts Limited on 29th July $10,000 at 64.
for Third Canadian G. I. Trusts Ltd. on 29th July $5,000 at 63½
for Third Canadian G. I. Trusts Ltd. on 29th July $10,000 at 64
for Fourth Canadian G. I. Trusts Ltd. on 2nd Aug. $10,000 at 62½
for Fourth Canadian G. I. Trusts Ltd. on 10th Aug. $8,500 at 65⅜
for Fourth Canadian G. I. Trusts Ltd. on 11th Aug. $7,000 at 65½
for Fourth Canadian G. I. Trusts Ltd. on 11th Aug. $14,000 at 65¼

The total list is lengthy.

Mr. Meighen's purchases from 28th July on behalf of his Companies were turned in to the Hydro Commission at a profit. The Commission had offered to purchase these bonds at a price yielding 71, as figured by Mr. Henry. Mr. Meighen found that he could buy the bonds for his Companies, for some time at least, at a price less than the offer and proceeded to buy them and turn them over to the Commission at a substantial profit to his Companies as indicated by the above prices.

What was his duty towards the Commission of which he was a member and towards the Companies of which he was manager or director? The transactions were of course profitable to his Companies who had therefore no ground for complaint. On finding however that the bonds could be acquired at a price lower than the offer, what was his duty towards the Commission of which he was a member, and towards the Government for which he claims the Commission was acting as a mere agent?

In Mr. Henry's published statement, the following appears: "Under these circumstances Ontario Power Service Corporation, Limited, requested the Government to consider some plan for assisting the Company or for taking over and completing the work on behalf of the Government, and for some time the matter has been given serious thought by the Government and the Hydro Electric Power Commission of Ontario . . . . . The Government and the Commission consider that it is most important that the development should be completed . . . . . And the Government with the approval of the Commission has finally decided, as the most convenient way of getting title to the property, to offer to the bondholders $18,000,000 of Hydro Commission Government guaranteed twenty year debentures."

Mr. Henry now says that this statement was not accurate as to these particulars and that in fact, the Commission had not made any request to the Government; that the Commission had not considered the matter and had not approved of the decision of the Government and, that he should have referred in this statement, not to the Commission, but to Mr. Cooke as a member of the Government and to the Engineers of the Commission.

Mr. Meighen says he did not correct these errors in Mr. Henry's published statement, as they did not impress him to be of importance.

On the 28th July, Mr. Henry sent his letter of that date to the Chairman of the Commission. Mr. Meighen was present at all the meetings of the Hydro Commission which dealt with the subject matter of this letter.

A meeting of the Commission was held on the 2nd of August, when a formal offer for the purchase of the bonds was prepared and a resolution passed that such purchase be made and advertised, and that the Secretary be instructed to apply for an Order-in-Council authorizing the Commission to acquire the bonds. Next came the resolution of the 4th August, recommending that the Commission be authorized and empowered under the provisions of the Power Commission Act, to purchase the bonds as already set out. On the 7th October, 1932, the resolution for the purchase of all the bonds deposited up to that date was adopted. This was done before the passing of the Order-in-Council of 16th August authorizing the purchase. The evidence is that this resolution was passed on a verbal request from the Government.

The purchase of the bonds by the exchange mentioned was carried out, as stated, under Section 20 (2) (gg) of the Power Commission Act which provides as follows: "That the Lieutenant-Governor-in-Council upon the recommendation of the Commission, may authorize the Commission to acquire from time to time by purchase in the open market, or otherwise, shares or stock in, or the securities of, any incorporated company carrying on the business of developing, distributing or transmitting electrical power or energy and for the purposes of this Act the acquisition of such shares, or stock, or securities shall be an investment in works."

Mr. Meighen says: The Act does not refer at all to anything to be done by the Cabinet on their own responsibility as a Government but refers entirely to and has in contemplation the conduct of Hydro, as trustee for the Municipalities, who are the legal owners. The Act is not, he says, for a case of Government action at all.

Would anyone, he asks, "suggest that the Government of Ontario cannot make a purchase on its own responsibility with its own funds on its own credit unless the Hydro Commission recommends it?" He argues that in carrying out this purchase or exchange the Commission acted at the request of the Government as the agent of the Government and as such had no responsibility or discretion in the matter. If this be so, the powers of the Hydro Commission are divided into two classes, one to be exercised properly by the Commission on its own authority subject to the restriction provided in the Act, and the other to be exercised actually by the Government at its discretion and on its responsibility, but acting pro forma through the Commission as a piece of mechanism to be made use of as the Government may see fit. The transaction in question, Mr. Meighen argues is therefore outside the real powers of the Commission as contemplated by the statute and is not to be regarded as its own act, but as a transaction made by the Government, which the Commission was in duty bound to adopt at the request of the Government, by the exercise of statutory powers of the Commission, without discretion or responsibility on its part as a mere matter of form.

No such divided power can be read into the Statute.

If the argument is sound, the Government and the Commission were making use of the Statute for a purpose not within its contemplation in order to avoid resort to the Legislature.

There were no Municipalities interested in the purchase of the 100,000 H. P. Was that contract also entered into by the Commission purely as agent for the Government as a matter of form without right to consider the merits and without responsibility?

Mr. Meighen's question, just referred to, can be answered by pointing out that the Government of Ontario cannot make a purchase, such as the one in question on its own responsibility with its own funds on its own credit without the sanction of the Legislature which was not obtained. Lacking such sanction, it had no power in itself to expend the money required for the purchase of these bonds. If the Commission, as he says, acted merely as agent, then the agent's authority could not be greater than the authority of the principal which itself had none.

The Hydro Commission is a body corporate endowed with statutory powers St. Catherines v. Hydro (1927) 61 O. L. R. 465. These cannot be exercised as agent for the Government but which it must itself exercise as principal. He says "Hydro is not owned by the Government and people of Ontario but by the 700 Municipalities who are the legal owners." This, however, is not correct. What title, for instance, has any Municipality to Chippawa and other developments or to the contracts of the Hydro Commission for power purchased? Many Municipalities have acquired their own plants for the production or distribution of electric energy with or without the aid of the Commission. The Commission in certain cases, sells electricity to individuals and companies for industrial purposes without the intervention of any Municipality, both in Old Ontario and New Ontario.

The Government may grant or refuse authority to the Commission to enter into a transaction such as the one in question, but beyond that, the power of the Commission to enter into and to carry out this particular transaction is derived from the section quoted of the Power Commission Act itself, and not from the Government or cabinet, and responsibiiity for the exercise of that power so conferred must in every case rest on the Commission.

The Commission carried out the proposed transaction in pursuance of and by virtue of the power and authority vested in it by the Statute.

The Government might request the Commission to act, and might consider that the circumstances afforded convincing reasons for acceding to the request, but the responsibility and the discretion to be exercised must, as stated, rest where the Statute places it, that is, with the Commission itself.

Mr. Meighen says that the Commission never took the merits of the purchase into consideration but recommended it as a pro forma act. There were the gravest of reasons for investigating the merits of the proposed transaction.

The Commission of which Mr. Meighen was a member, recommended that an order-in-council be passed authorizing the purchase by the Commission of $3,000 face value of the bonds in question held by him personally and of some $300,000 face value of these bonds which were held by companies which he represented. The Commission made the purchase accordingly. This was undoubtedly the situation from a legal point of view.

It is argued, however, that substantially it was a purchase by the Commission for the Government by reason of the indemnity given by the Government to the Commission against loss and that in view of the circumstances it made no real difference in money value, that Mr. Meighen as a Commissioner took part in the purchase.

The indemnity relied on is ineffectual because it creates a liability on the Province that cannot be created by order-in-council.

Apart from certain prerogative matters, an Order-in-Council is not effective unless passed under an Act expressly or by implication authorizing what the Order-in-Council prescribed. Hence, no Order-in-Council passed by the Governor General in Council, or by the Lieutenant Governor in Council in this Province, has any legal effect unless authorized by some Statute, or falls within the category of prerogative Orders-in-Council. Price Bros. vs. Board of Commerce (1920) 60 S.C.R. 265—where an Order-in-Council passed by the Governor General of Canada in Council was held to be ultra vires.

As a Commissioner, Mr. Meighen had to share in a responsibility and exercise a discretion cast upon the Commission by the statute. He was, therefore, a party interested in making and carrying out the transaction. It may be said that, in view of the circumstances, the responsibility and discretion involved was of little consequence as the transaction would have been carried out and the bonds held by Mr. Meighen and the Companies he represented would have brought the same price whether he took part as Commissioner or not, it being a practical certainty that the other two commissioners would have carried out the transaction in just the same way without Mr. Meighen's participation. That, however, does not necessarily follow, though it may be probable.

The purchase was, in fact and in point of law, made, as already pointed out, by the Commission of which Mr. Meighen was a member, and the question of the amount involved or of whether any money value at all was involved affects only the degree of impropriety arising from the transaction.

It was open to Mr. Meighen to have said to the other two Commissioners, the Government and the public that he was interested personally and on behalf of his companies in bonds that the Government was requesting the Commission to purchase and that therefore he could take no part in the recommendation or in the purchase.

He failed to do this and thus was placed in the position as a Commissioner of being buyer of these bonds and of being a seller of them in his individual capacity and as a director or manager of the companies in which he was interested.

The findings reached by your Commissioners, based on the voluminous evidence and exhibits, are expressed in the foregoing pages.

Having regard to the fact that the property at the Abitibi Canyon has all been acquired by the Hydro Commission, they find it unnecessary to add any recommendation to this their report.

All of which is respectfully submitted.

DATED at Toronto this 20th day of October, 1934.

(Signed) F. R. LATCHFORD
R. SMITH

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  Credit or Charge Account..........246
  Sinking Fund..........250
  Municipal Accounts..........A, 334; B, 380
  Statements..........C, 400; D, 418; E, 434
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  Credit or Charge Account..........224
  Sinking Fund..........228
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  Credit or Charge Account..........194
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  Sinking Fund..........203
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  Cost of Power..........212
  Credit or Charge Account..........224
  Sinking Fund..........228
  Municipal Accounts..........A, 325; B, 371
  Statements..........C, 400; D, 418; E, 434
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  Cost of Power..........164
  Credit or Charge Account..........194
  Sinking Fund..........203
  Municipal Accounts..........A, 315; B, 361
  Statements..........C, 400; D, 418; E, 434
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  Rural Line Construction..........110
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  Cost of Power..........164
  Credit or Charge Account..........194
  Sinking Fund..........203
  Municipal Accounts..........A, 315; B, 361
  Statements..........C, 400; D, 406; E, 434
Woodstock Rural Power District—Load in Horsepower.......... 28
  Miles of Line, Consumers and Rates.......... 81
  Rural Line Construction..........110
  Cost of Power..........176
  Operating Report..........186
  Credit or Charge Account..........198
  Sinking Fund..........204
  Details of Construction in..........444
Woodville—Load in Horsepower.......... 32
  Cost of Power..........212
  Credit or Charge Account..........224
  Sinking Fund..........228
  Municipal Accounts..........A, 325; B, 371
  Statements..........C, 400; D, 418; E, 434
Wroxeter Rural Power District—Load in Horsepower.......... 33
  Miles of Line, Consumers and Rates.......... 82
  Cost of Power..........216
  Operating Report..........220
  Credit or Charge Account..........226
  Sinking Fund..........229
  Details of Construction in..........445
Wyoming—Load in Horsepower.......... 26
  Cost of Power..........164
  Credit or Charge Account..........194
  Sinking Fund..........203
  Municipal Accounts..........A, 316; B, 362
  Statements..........C, 400; D, 418; E, 434

Y

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York, East, Township. (See East York Township.)
York, North, Township. (See North York Township.)

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  Municipal Work.......... 60
  Cost of Power..........164
  Credit or Charge Account..........194
  Sinking Fund..........203
  Municipal Accounts,..........A, 316; B, 362
  Statements..........C, 400; D, 418; E, 434

PROVINCIAL AUDITOR'S REPORT

1933-34

Prepared pursuant to the provisions of an Order-in-Council dated
the 28th day of October, 1909

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 27

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1 9 3 5

To The Honourable Herbert Alexander Bruce, M.D.,
R.A.M.C., F.R.C.S. (Eng.),
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

The undersigned has the honour to present to Your Honour the Report of the Provincial Auditor pursuant to the provisions of R.S.O. 1927, chap. 25, sec. 13, subsec. 2, of the Audit Act.

Respectfully submitted,

Mitchell F. Hepburn,
Treasurer of Ontario.

Treasury Department, Ontario,
Toronto, February 15th, 1935.

PROVINCIAL AUDITOR'S OFFICE,

Toronto, February 15th, 1935.

HON. MITCHELL F. HEPBURN,
Treasurer of Ontario.

SIR: I have the honour to submit for the information of the Legislative Assembly, pursuant to the provisions of an Order-in-Council dated 28th October, 1909, as provided by R.S.O. 1927, chap. 25, subsection 2 of section 31, and pursuant to the provisions of subsection 2 of section 13, and sections 27 and 28 of the Audit Act:

(A) Introduction and Miscellaneous Statements.
(B) Legal Opinions.
(C) Over-Rulings.
(D) Statement of Treasury Board Minutes.
(E) Statement of Special Warrants.

Respectfully submitted,

G. A. BROWN,
Provincial Auditor.

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A

INTRODUCTION AND MISCELLANEOUS STATEMENTS

Report of the Provincial Auditor

INTRODUCTION

I have the honour to submit my report for the fiscal year ended October 31st, 1934, pursuant to the provisions of subsection 2 of section 13 and sections 27 and 28 of the Audit Act, R.S.O. 1927, chap. 25.

Ordinary Expenditure	$80,667,091.15
Ordinary Revenue	50,067,841.37
Excess of Ordinary Expenditure over Ordinary Revenue	$30,599,249.78

STATEMENT SHOWING SOURCES OF ORDINARY REVENUE

Fiscal Year Ended October 31st, 1934

DOMINION GOVERNMENT—		
Annual Subsidy	$2.941.424 28	
Interest—Common School Fund	72.789 98	
		$3,014,214 26
REVENUE DERIVED FROM INDIVIDUALS AND CORPORATIONS RECEIVING THE BENEFIT OF PROVINCIAL SERVICES, SPECIAL PRIVILEGES OR THE USE OF NATURAL RESOURCES AND PROPERTIES AND PROFITS FROM TRADING, ETC.:		
Taxation	$28,781.278 86	
Gasoline, Mines, Lands, Corporations, Race Tracks (betting), Amusements, Stock Transfers, Succession Duties and Wine.		
Royalties, Duties and Dues	1.233.835 06	
Bonus and timber, Sand and Gravel, Game and Fish.		
Licenses and Permits	9,165.924 87	
Motor Vehicles, Liquor Permits, Hunting and Fishing, Insurance, Loan and Trust Companies, Mines, Theatres, etc.		
Fees	1.748.048 37	
Local Registrars, Police Magistrates, Crown Attorneys, etc.; Mine Recording, Companies and Brokers' Registration, etc.; Land Transfers, Motor Vehicle Transfers, etc.		
Fines and Penalties	91.567 73	
Profits from Trading Activities	5.170.010 00	
Liquor Control Board—Profits, Fines, Sale of Confiscated Liquor, etc.		
Interest on Drainage and Sundry Loans	157.072 78	
Agriculture and Public Domain	513.906 96	
Miscellaneous	191.982 48	
ONTARIO GAZETTE, sale of Government Publications, and Casual Revenue.		
		47,053,627 11
		$50.067.841 37

PROVINCIAL DEBT

Statement Showing Investment Thereof as at October 31st, 1934

FUNDED DEBT:			
Stock and Debentures Outstanding			$599.558.344 52
Certificates and Annuities			895,757 56
			$600,454.102 08
Deduct—Sinking Fund Investments			6,415,313 59
Total Funded Debt			$594,038.788 49
UNFUNDED DEBT:			
Treasury Bills		$ 20.935.000 00	
Savings Office Deposits		21.449.526 91	
Special Funds. Accounts Payable and Accrued Interest		13.427.600 24	
Bank Overdrafts		5.909.937 06	
			61,722,064 21
Gross Debt			$655.760.852 70
INVESTMENT THEREOF:			
Revenue Producing and Realizable Assets—			
Hydro-Electric Power Commission—Advances		$187.829.243 28	
Temiskaming and Northern Ontario Railways—Advances		37.207.934 92	
Farm, Housing and Settlers' Loans		63.656.401 53	
Accounts Receivable	$ 6,853.295 67		
King's Highways—Construction—Cities and Counties	1.737,265 36		
		8.590.561 03	
			$297,284.140 76
Revenue Producing but not Realizable Assets—			
Roads and Highways	$206.486.611 85		
Less—Due by Cities and Counties	1,737.265 36		
		$204.749.346 49	
Niagara Parks		1,279.579 79	
Common School Fund—Trust Fund: Ontario and Quebec		1.459,359 83	
			207,488.286 11
Total Revenue Producing Assets			$504.772.426 87
Non-Revenue Producing Assets—			
Provincial Buildings and Public Works		$ 78.494.203 12	
Plant, Stores and Equipment		2.244,267 10	
Deferred Assets		734,403 78	
			81.472.874 00
Other Assets—			
Capital Value of Annual Subsidy		$ 58.828.485 60	
Unemployment Relief—Direct (less amount written off)		14.045.036 40	
Discount on Debentures, etc.		9.258.441 51	
			82.131.963 51
Total Assets			$668.377.264 38
Excess of Assets over Liabilities			$ 12,616,411 68

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

Advances by Province to October 31st, 1934

Advanced on Capital Account to October 31st, 1933		$204,973,166 14
Advances during current year		2,619,211 00
		$207,592,377 14
Deduct:		
Refund of Capital Advances not required		342,118 80
Total Advances to date		$207.250,258 34
Repayments from Sinking Fund in accordance with Debt Retirement Plan—		
To October 31st, 1933	$ 17,008,616 73	
For Current year	2,412,398 33	
		19,421,015 06
Net Advances to October 31st, 1934		$187,829,243 28

Note—Province of Ontario Bonds of the Par Value of $2,401,000 have been deposited with the Treasurer of Ontario by the Hydro-Electric Power Commission as collateral security for the repayment of Advances.

AGRICULTURAL DEVELOPMENT FINANCE ACT

R.S.O. 1927, Cap. 67

Statement Showing Deposits in Province of Ontario Savings Offices, and Agricultural Loans as at October 31st, 1934

DEPOSITS IN SAVINGS OFFICES BY PUBLIC AT OCTOBER 31ST, 1934		$ 21.449,526 91
AGRICULTURAL DEVELOPMENT FINANCE ACT—INVESTMENTS—		
Agricultural Development Board—Debentures	$ 62,088.000 00	
Less: Repayments to date	12,488,000 00	
	$ 49,600.000 00	
Accrued Interest on debentures	5,697.358 08	
		$ 55.297,358 08
Farm Loans Act—Farm Loan Associations		190.094 65
" " " —Capital Stock in Associations		2,445 00
		$ 55,489,897 73
Savings Offices—		
Cash on hand and in banks	$ 572.224 25	
Accounts receivable	9.293 78	
Fixtures (depreciated value)	62.117 64	
		643.635 67
		$ 56.133.533 40

SUMMARY

Debentures, Cash, Etc.	$ 50.436.175 32
Accrued Interest on Debentures	5,697.358 08
	$ 56,133.533 40

PUBLIC SERVICE SUPERANNUATION FUND

R.S.O. 1927, Cap. 16, Part III

As at October 31st, 1934

Balance at credit of Fund—November 1st, 1933				$4,840,356 48
Receipts and Payments for fiscal year 1934.				
CONTRIBUTIONS—				
Employees			$391,440 88	
Commissions, Boards, etc. (Sec. 39)			47,960 13	
Government (Sec. 39)		$343,480 75		
(" 60)		16,701 14		
		$360.181 89		
Less Refunds (Sec. 36)		134.905 05		
			225,276 84	
			$664.677 85	
EARNINGS—				
Interest—On balance to credit of the Fund at November 1, 1933:				
$4.840.356 48 for 7 months at 5 %		$141.177 05		
4,500.000 00 " 5 " 4¾%		89.062 50		
340,356 48 " 5 " 5 %		7,090 76		
		$237,330 31		
On contributions.				
Employees	$ 8.968 40			
Government	8.968 40			
	$ 17,936 80			
Less—Interest deducted on account of payments to beneficiaries, etc.	13,418 55			
		4.518 25		
			241.848 56	
Total receipts for year ended October 31st, 1934			$906.526 41	
PAYMENTS—				
Allowances to beneficiaries		$538.322 67		
Refunds and interest		157,388 28		
			695.710 95	
				210.815 46
Balance at Credit of Fund, October 31st, 1934				$5,051.171 94

INVESTMENT OF FUND

Province of Ontario Debentures—4¾% due October 31st, 1953	$4,500,000 00
Funds uninvested—on deposit with the Treasurer of Ontario	551,171 94
	$5,051,171 94

STATEMENT SHOWING AMOUNT EXPENDED ON ROAD CONSTRUCTION IN ONTARIO FROM COMMENCEMENT OF GOOD ROADS SYSTEM, 1903; COLONIZATION ROADS, 1903; NORTHERN DEVELOPMENT ACT, 1912, AND PROVINCIAL HIGHWAYS ACT, 1917.

Year	The Highway Improvement Act, Chap. 54, R.S.O. 1927							Colonization Roads	Roads in Northern Ontario	Year
	Provincial	County	Township	Object Lesson	Conn. Links	T.&H. Highy.	Indian Res.			
1903—19	1,506,000 00	3,887,080 66	....	125,760 41	....	....	....	5,578,865 11	5,760,181 71	1903—19
1920	4,450,000 00	2,623,719 34	....	33,730 27	$2,900 00	....	....	451,808 59	1,241,405 90	1920
1921	9,925,022 95	3,635,267 34	$326,668 81	5,000 00	16,622 10	....	....	506,180 80	1,409,126 19	1921
1922	12,050,000 00	5,110,217 49	701,349 61	....	167,615 08	$17,272 62	....	671,184 48	1,694,889 56	1922
1923	16,897,172 79	4,257,871 34	669,483 05	....	169,631 26	11,349 14	....	827,855 98	2,688,151 48	1923
1924	6,600,000 00	3,118,059 04	613,860 51	....	40,523 00	22,472 92	....	447,414 66	2,949,239 56	1924
1925	8,350,000 00	3,213,783 60	638,808 11	....	53,575 42	123,670 07	....	474,409 34	3,381,301 86	1925
1926	6,750,000 00	3,222,099 91	938,118 04	....	75,224 28	....	$6,870 69	296,317 27	3,736,612 01	1926
1927	9,150,000 00	2,878,724 84	1,319,173 80	....	32,782,10	....	1,714 73	198,188 75	3,943,361 77	1927
1928	11,650,000 00	3,740,143 99	1,602,517 95	....	1,022 20	....	13,459 92	359,383 68	3,830,617 42	1928
1929	12,150,000 00	4,359,577 69	1,794,950 66	....	166,925 22	....	21,203 11	405,564 91	4,943,462 70	1929
1930	13,875,000 00	1,590,367 00	2,131,211 67	....	85,419 31	....	25,520 31	600,626 77	7,200,962 50	1930
1931	12,670,000 00	4,117,696 10	2,309,576 36	....	40,854 13	....	29,603 14	497,265 93	8,776,122 79	1931
1932	7,750,000 00	3,670,334 72	1,877,405 55	....	46,578 14	....	13,245 01	443,623 76	15,187,839 16	1932
1933	5,200,000 00	2,105,893 72	1,377,640 28	....	11,443 28	....	11,334 75	304,684 54	5,875,537 01	1933
1934	12,697,555 97	1,463,519 72	1,000,058 41	....	35,235 57	....	14,856 13	223,611 80	23,637,867 89	1934
	$151,970,751 71	$56,594,656 50	$17,350,852 81	$164,190 63	$949,351 09	$174,765 05	$143,807 82	$12,587,016 37	$96,256,709 51	

SUMMARY OF EXPENDITURE

The Highway Improvement Act:	Capital	Ordinary
Provincial Highways	$127,017,097 21	$24,953,654 50
County Roads	39,446,942 08	17,147,714 42
Township Roads	7,473,153 18	9,877,699 66
Object Lesson Roads	164,490 68	....
Connecting Links	921,707 54	27,643 55
Toronto and Hamilton Highway Commission	94,168 46	80,596 59
Indian Reserve	72,135 96	71,671 86
	$175,189,695 11	$52,158,980 58
Colonization Roads	7,560,035 79	5,026,980 58
Roads in Northern Ontario	74,665,957 55	21,590,751 96
	$257,415,688 45	$73,776,713 12

SUMMARY OF REPAYMENTS

Year	Repayments	Subsidy	Total
1918	$5,251 57	....	$5,251 57
1919	14,733 64	....	14,733 64
1920	78,261 82	....	78,261 82
1921	654,277 00	$1,315,633 67	1,969,910 67
1922	1,561,149 44	2,058,613 62	3,619,763 06
1923	988,454 00	705,048 24	1,693,502 24
1924	2,834,155 43	839,303 48	3,673,458 91
1925	5,067,807 75	865,414 90	5,933,222 65
1926	1,977,814 99	50,000 00	2,027,814 99
1927	1,572,671 18	53,269 37	1,625,940 55
1928	1,950,806 64	....	1,950,806 64
1929	2,172,153 18	....	2,172,153 18
1930	3,547,715 81	....	3,547,715 81
1931	4,308,316 80	....	4,308,316 80
1932	8,366,401 33	....	8,366,401 33
1933	2,755,754 87	....	2,755,754 87
1934	3,493,850 90	....	3,493,850 90
	$41,349,576 35	$5,887,283 28	$47,236,859 63

RECAPITULATION

	Capital	Ordinary	Total
Expenditure	$257,415,688 45	$78,776,713 12	$336,192,401 57
Repayments	36,341,027 89	10,895,831 74	47,236,859 63
Total Expenditure	$221,074,660 56	$67,880,881 38	$288,955,541 94

G. A. BROWN,
Provincial Auditor

SALARY ASSESSMENT DEDUCTIONS

November 1st, 1933, to October 31st, 1934

Lieutenant-Governor's Office	$ 98 87	
Legislation	637 20	
Prime Minister's Department	3,287 47	
Attorney General's Department	35,139 58	
Insurance Department	1.350 61	
Education Department	31,531 32	
Lands and Forests Department	15,550 12	
Northern Development Department	2.894 57	
Mines Department	6,095 69	
Game and Fisheries Department	6,149 42	
Public Works Department	6,648 95	
Highways Department	12,481 25	
Health Department	58,119 80	
Labour Department	6,868 82	
Public Welfare Department	10,258 62	
Municipal Affairs Department	310 18	
Treasury Department	7.668 49	
Provincial Auditor's Office	2.777 17	
Provincial Secretary's Department	12.276 12	
Agriculture Department	25,494 76	
		$ 245.639 01

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34

Name	Page Pub. Acc.	Amount	Total
		$ c.	$ c.
LEGISLATION:			
R. Brown	B 3	550 20	
"	B 4	75 00	
"	D 38	200 00	825 20
T. Cordell	B 3	244 60	
"	K 14	1,141 60	
"	B 4	75 00	
"	D 38	150 00	1,611 20
M. R. Dies	B 3	1,662 50	
"	B 3	200 00	1,862 50
W. G. W. Harvey	B 4	1,662 50	
"	B 3	400 00	
"	D 38	500 00	2,562 50
F. Hilliard	B 4	228 32	
"	K 14	1,060 50	
"	B 4	25 00	
"	D 38	100 00	1,413 82
M. R. Rice	B 4	1,467 50	
"	B 4	50 00	
"	D 38	400 00	1,917 50
PRIME MINISTER'S DEPT.:			
C. F. Bulmer	C 6	4,365 00	
"	D 38	1,000 00	5,365 00
W. J. Campbell	C 5	1,662 50	
"	B 4	50 00	1,712 50
L. Church	C 7	1,028 75	
"	B 4	50 00	1,078 75
C. J. Foster	C 5	3,186 04	
"	B 4	75 00	3,261 04
T. W. Heron	C 7	2,343 00	
"	B 4	50 00	2,393 00
I. Leaman	C 6	1,370 00	
"	D 38	50 00	1,420 00
B. Long	C 6	882 00	
"	D 38	50 00	932 00
H. Petley	C 7	1,760 00	
"	B 4	200 00	1,960 00
P. D. Shea	C 7	1,467 50	
"	B 4	50 00	1,517 50
F. W. Sprague	C 7	1,175 00	
"	B 4	50 00	1,225 00
A. Stewart	C 6	1,760 00	
"	D 38	50 00	1,810 00

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
PRIME MINISTER'S DEPT.—Continued		$ c.	$ c.
J. Young	C 6	808 50	
"	D 38	50 00	858 50
ATTORNEY GENERAL'S DEPT.:			
C. A. Fitch	D 16	1,428 44	
"	D 38	1,000 00	2.428 44
A. G. Haig	D 16	1,009 91	
"	D 38	50 00	1,059 91
G. F. Henderson	D 16	2,638 60	
"	I 8	2,774 88	5,413 48
I. A. Humphries	D 9	5,902 36	
"	D 37	840 03	6,742 39
M. Jones	D 9	1,175 02	
"	D 38	150 00	1,325 02
D. J. Knight	D 16	1,028 75	
"	D 38	100 00	1,128 75
F. J. LeBrock	D 16	1,857 50	
"	D 38	200 00	2,057 50
M. L. McGillivray	D 9	1.467 50	
"	D 38	150 00	1,617 50
P. Marshment	D 9	471 62	
"	E 3	42 88	
"	D 38	50 00	564 50
E. A. Mockler	D 16	1.955 00	
"	D 38	200 00	2,155 00
M. Parkhill	D 16	1.467 50	
"	D 38	200 00	1,667 50
EDUCATION DEPT.:			
H. E. Amoss	F 25	4.269 00	
"	F 23	320 00	4,589 00
L. Beattie	F 48	3.885 00	
"	F 23	320 00	
"	F 28	252 00	4,457 00
W. A. Beecroft	F 28	2.925 00	
"	F 28	24 00	
"	F 28	150 00	3,099 00
A. J. Beneteau	F 25	4.845 00	
"	F 28	274 00	
"	F 28	300 00	5.419 00
J. D. Campbell	F 24	4.077 00	
"	F 28	74 00	4.151 00
J. P. Cowles	F 28	4.461 00	
"	F 28	500 00	4.961 00

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
EDUCATION DEPT.—Continued		$ c.	$ c.
N. Davies	F 48	3.693 00	
"	F 23	345 60	
"	F 29	36 00	4.074 60
L. H. DeLaporte	F 25	2.488 50	
"	F 23	200 00	2,688 50
W. J. Fleming	F 20	1,662 50	
"	F 20	52 00	1,714 50
V. K. Greer	F 24	5.225 00	
"	F 28	78 00	5.303 00
A. M. Hamill	F 48	3.501 00	
"	F 23	240 00	
"	F 28	84 00	3.825 00
J. P. Hoag	F 25	4.461 00	
"	F 28	421 50	
"	F 28	300 00	5.182 50
A. G. Hooper	F 43	4.461 00	
"	F 28	500 00	4.961 00
A. J. Husband	F 43	4,461 00	
"	F 28	500 00	4,961 00
W. A. Jennings	F 43	4.461 00	
"	F 28	356 00	4,817 00
W. J. Karr	F 25	4.845 00	
"	F 28	416 00	
"	F 29	300 00	5.561 00
H. W. Kerfoot	F 29	4.269 00	
"	F 28	412 00	4,681 00
J. B. MacDougall	F 25	4,077 00	
"	F 23	102 00	4,179 00
D. McArthur	F 13	2.157 25	
"	F 28	246 50	2,403 75
A. Moon	F 48	3.693 00	
"	F 23	308 00	
"	F 28	30 00	4.031 00
S. D. Rendall	F 25	3.885 00	
"	F 28	184 50	4.069 50
G. F. Rogers	F 13	3,918 78	
"	F 43	1.377 50	
"	F 28	614 00	
"	F 29	800 00	6.710 28
F. S. Rutherford	F 48	4.461 00	
"	F 28	517 50	
"	N 6	38 40	5,016 90

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
EDUCATION DEPT.—Continued		$ c.	$ c.
F. G. Sloman	F 20	1,760 00	
“	F 20	97 00	
“	F 28	29 25	1,886 25
D. Walker	F 29	4,075 31	
“	F 28	138 00	
“	F 29	800 00	5,013 31
G. Walton	F 13	1,955 00	
“	F 14	68 60	2,023 60
MINES DEPT.:			
R. H. Murray	I 9	2,925 00	
“	T 66	698 60	3,623 60
GAME AND FISHERIES DEPT.:			
J. Farrington	J 4	2,925 00	
“	B 3	50 00	2,975 00
PUBLIC WORKS DEPT.:			
J. Bennett	K 14	1,304 30	
“	B 4	75 00	1,379 30
S. Lowe	K 15	1,175 00	
“	B 4	50 00	1,225 00
S. McKenzie	K 14	1,370 00	
“	B 4	50 00	1,420 00
E. M. Sexsmith	K 15	1,565 00	
“	B 4	75 00	
“	D 38	50 00	1,690 00
W. Thompson	K 13	655 32	
“	B 4	50 00	705 32
HIGHWAYS DEPT.:			
G. Adkins	L 4	260 80	
“	L 59	1,304 20	
“	Q 13	25 00	1,590 00
L. Smallwood	L 4	391 22	
“	L 59	1,173 78	
“	Q 13	25 00	1,590 00
R. M. Smith	L 4	5,795 00	
“	L 6	1,200 00	6,995 00
HEALTH DEPT.:			
B. Baycroft	M 19	1,101 87	
“	M 20	48 83	1,150 70
L. Brydson	M 19	1,028 75	
“	M 20	217 54	1,246 29

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
		$ c.	$ c.
HEALTH DEPT.—Continued			
J. R. Buchanan	M 19	1,175 00	
"	M 20	177 26	1,352 26
A. M. Chew	M 19	1.272 50	
"	M 20	15 60	1,288 10
J. Cogle	M 19	1,272 50	
"	M 20	192 85	1,465 35
F. J. Conboy	M 14	2,913 75	
"	F 23	72 00	2,985 75
V. Crossley	M 19	1,760 00	
"	M 20	48 91	1,808 91
W. Fenton	M 19	1,565 00	
"	M 20	187 20	1,752 20
M. Fields	M 19	1,175 00	
"	M 20	23 40	1,198 40
M. Harrison	M 19	735 00	
"	M 20	23 52	758 52
E. Haynes	M 20	511 20	
"	M 20	33 32	544 52
E. Jewell	M 19	1,467 50	
"	M 20	165 78	1,633 28
A. D. McClure	M 19	2,052 00	
"	M 20	99 89	2,151 89
W. B. McClure	M 19	1,317 00	
"	M 20	1.317 00	
"	M 20	60 50	2,694 50
B. T. McGhie	M 22	6,995 00	
"	F 23	36 00	7,031 00
A. L. McNabb	M 19	4,077 00	
"	M 20	61 49	4,138 49
M. Mercer	M 19	808 50	
"	M 20	23 52	832 02
W. Murphy	M 19	367 50	
"	M 20	367 50	
"	M 20	184 27	919 27
R. Packham	M 19	1,565 00	
"	M 20	165 09	1,730 09
J. T. Phair	M 13	4,268 97	
"	F 23	320 00	4,588 97
C. R. Smith	M 19	1,760 00	
"	M 20	198 41	1,958 41

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
HEALTH DEPT.—Continued		$ c.	$ c.
G. Stewart	M 20	294 00	
“	M 20	30 87	
			324 87
M. D. Ward	M 19	1.565 00	
“	M 20	25 77	
			1.590 77
W. M. Wilson	M 19	3.501 00	
“	M 20	61 96	
			3.562 96
DEPT. OF MUNICIPAL AFFAIRS:			
A. Becker	D 36	918 20	
“	P 3	183 67	
“	O 22	100 00	
			1.201 87
W. J. Crawford	D 36	1.952 50	
“	P 3	390 50	
“	O 22	500 00	
			2.843 00
H. L. Cummings	B 4	3.717 50	
“	D 36	795 00	
“	P 3	159 00	
“	P 3	743 50	
			5.415 00
J. A. Ellis	D 36	5.014 28	
“	P 3	773 32	
“	O 22	3.000 00	
			8.787 60
J. J. Hoolihan	D 36	1.629 10	
“	P 3	325 90	
“	O 22	300 00	
			2.255 00
G. D. Kennedy	D 36	521 65	
“	D 36	782 52	
“	P 3	260 87	
“	O 22	200 00	
			1.765 04
TREASURY DEPT.:			
F. R. Bailey	Q 12	587 48	
“	Q 13	587 52	
“	Q 13	25 00	
			1.200 00
H. W. Coo	Q 12	587 48	
“	Q 13	587 52	
“	Q 13	25 00	
			1.200 00
O. R. Dew	Q 13	1.662 50	
“	Q 13	25 00	
			1.687 50
J. Hamilton	Q 13	391 68	
“	Q 22	97 92	
“	R 4	685 40	
“	Q 13	25 00	
			1.200 00
E. Hamilton	Q 12	1.272 50	
“	Q 13	25 00	
			1.297 50
M. R. Jack	Q 12	489 60	
“	Q 13	587 52	
“	Q 13	25 00	
			1.102 12

Statement showing the remuneration paid to Officials in the Parliament Buildings who received pay from more than one source during the Fiscal Year 1933-34—Continued

Name	Page Pub. Acc.	Amount	Total
TREASURY DEPT.—Continued		$ c.	$ c.
W. R. Jones	Q 12	1.175 00	
"	Q 13	25 00	1,200 00
H. T. McKee	Q 12	1,565 00	
"	Q 13	25 00	1,590 00
M. T. Moorby	Q 12	1,662 50	
"	Q 13	25 00	1,687 50
H. Parker	Q 13	293 76	
"	Q 22	489 60	
"	R 4	391 64	
"	Q 13	25 00	1,200 00
R. T. Regan	Q 10	2,925 00	
"	B 3	150 00	3.075 00
A Stevenson	Q 12	1,662 50	
"	Q 13	25 00	1,687 50
A. R. Terhune	Q 12	1.955 00	
"	Q 13	25 00	1,980 00
W. W. White	Q 10	1,175 00	
"	Q 13	25 00	1,200 00
PROVINCIAL SECRETARY'S DEPT.:			
A. E. Venables	S 6	1,565 00	
"	B 4	10 00	
"	C 5	44 00	
"	M 15	519 85	2,138 85

B

LEGAL OPINIONS

Re Corporations Tax

PROVINCIAL AUDITOR'S OFFICE,
Toronto, June 6th, 1934.

MR. I. A. HUMPHRIES, K.C.,
Deputy Attorney General.

Dear Sir:

Regulations passed by Order-in-Council dated April 27th, 1933, respecting the collection of Corporations Tax revenue embody the following clause:—

> "In ascertaining the taxable capital of a Company, the item of goodwill carried as an asset shall in whole or part be allowed as a deduction, to the extent that such goodwill, in the opinion of the Controller of Revenue, has no value."

The Editorial Services Limited has a paid-up capital of $26,500.00. In their statements they include and are allowed by the Tax Department a deduction of $26,000.00 representing goodwill.

May I ask if, in your opinion, the regulations give the Controller of Revenue authority for allowing as a deduction the full amount representing goodwill, and if I am precluded from questioning any allowances made under the above regulations coming within the scope of my audit?

Yours very truly,

G. A. BROWN,
Provincial Auditor.

DEPARTMENT OF ATTORNEY GENERAL
Toronto 5, June 11th, 1934.

My Dear Sir:

Replying to your letter of the 6th instant addressed to the Deputy Attorney General.

The Order-in-Council which you quote seems to be clear, and you will observe that the item of goodwill may be allowed as a deduction "in whole or part", and apparently the opinion of the Controller of Revenue in the matter is final. It is my opinion, therefore, that the Controller of Revenue may authorize the deduction of the full amount representing goodwill, and that under the Order-in-Council you are not given any authority to question or revise his decision.

Yours very truly,

JOSEPH SEDGWICK,
Solicitor, Attorney General's Dept.

G. A. BROWN, ESQ.,
Provincial Auditor,
Parliament Buildings.

Re Special Grant By Special Warrant

Provincial Auditor's Office,
Toronto, September 14th, 1934.

Mr. I. A. Humphries, K.C.,
Deputy Attorney General.

Dear Mr. Humphries:

I would very much appreciate having your legal opinion as to whether a Grant voted by the Legislature for a specific purpose may be legally supplemented by the issue of a Special Warrant for a similar purpose by simply calling it a Special Grant.

It seems to me that Legislative authority means nothing if grants can be increased by means of Special Warrants for similar purposes.

Vote 49, item 8, 1934 Estimates:

> "Grant to Canadian Institute for the Blind to assist in maintaining and developing its activities on behalf of the adult blind of the Province, to be paid as directed by the Lieutenant-Governor in Council — $50.000.00."

In addition to this vote a Special Warrant was passed in May 1934 for a Special Grant of $10.000.00.

Yours very truly,

G. A. Brown,
Provincial Auditor.

Department of Attorney General
Toronto 5, September 24th, 1934.

G. A. Brown, Esq.,
Provincial Auditor,
Parliament Buildings.

Dear Mr. Brown:

I have your letter of September 14th asking for an opinion as to whether a grant voted by the Legislature for a specific purpose, may be legally supplemented by the issue of a special Warrant for a similar purpose by simply calling it a special grant.

I beg to say that there is no authority to appropriate money for any purpose without the consent of the Legislature. In special cases this consent is given in Section 13 (1) (b) of The Audit Act by providing that a Special Warrant be issued when the Legislature is not in session under the following conditions:

1. If an accident happens to any public work or building which requires an immediate outlay for the repair thereof.
2. If any other occasion arises when an expenditure not foreseen or provided for by the Legislature is urgently and immediately required for the public good.

then upon the report of the Treasurer that there is no Legislative provision therefor and of the Minister having charge of the service that the necessity is urgent and for the public good, the Lieutenant Governor in Council may order a special Warrant to be prepared.

In a case such as this, where a sum of money has been granted by the Legislature for a *specific* purpose and has been expended for that purpose, I am of the opinion that there is no authority under the provisions above referred to, to issue a Special Warrant for the purpose of, in effect, supplementing the grant.

Yours faithfully,

I. A. Humphries,
Deputy Attorney General.

Provincial Auditor's Office,
Toronto, September 27th, 1934.

Mr. I. A. Humphries, K.C.,
Deputy Attorney General.

Dear Mr. Humphries:

Acknowledging your letter of the 24th instant, I wish to thank you for your opinion re the issuing of Special Warrants for additional Grants.

Yours very truly,

G. A. Brown,
Provincial Auditor.

Re Amendment to the Assessment Act

Provincial Auditor's Office,

Toronto, September 19th, 1934.

Mr. I. A. Humphries,
Deputy Attorney General.

Dear Mr. Humphries:

An amendment to the Assessment Act was passed during the last session of the Legislature, being chap. 1, section 9 of 24 Geo. V statutes which reads as follows:

Sub-section 2 of section 143 of the Assessment Act is amended by adding at the end

> thereof the following words: "provided that the 10 per centum added to arrears of taxes due on the 1st day of May in any year shall not be compounded."
>
> Section 13:—This Act shall come into force on the day upon which it receives the Royal Assent.
>
> Act assented to April 3rd, 1934.

In view of this amendment may I ask if you would be good enough to give me a legal opinion as to whether this amendment may be construed as being retroactive.

I have several cases before me in connection with unpaid taxes on farms where loans have been made by the Agricultural Development Board.

I would very much appreciate your ruling at your earliest convenience.

Yours very truly,

G. A. Brown,
Provincial Auditor.

Department of Attorney General

Toronto 5, September 29th, 1934.

G. A. Brown, Esq.,
Provincial Auditor,
Parliament Buildings.

Dear Mr. Brown:

Replying to your letter of September 19th referring to the amendment made to subsection 2 of section 143 of The Assessment Act at the last Session of the Legislature, I may say that this provides that the penalty added to arrears of taxes on the 1st of May, is not to be compounded.

I am of the opinion that the Court would construe the amendment as not having any retroactive effect, and therefore any penalties which have been added prior to the 1st of May, 1934, and compounded prior to that time, cannot be altered or reduced, as the amendment has the effect only of providing that no future compounding of existing or new penalties can occur after April 2nd, 1934, when the amendment took effect.

Yours very truly,

I. A. Humphries,
Deputy Attorney General.

Re Mining Claims

PROVINCIAL AUDITOR'S OFFICE
Toronto, October 12th, 1933.

MR. E. BAYLY, K. C.,
Deputy Attorney General.

Dear Sir:

Having reference to an Audit Report that was forwarded to the Honourable Mr. McCrea and also to the Acting Deputy Minister of Mines, copy of which is attached (No. 1) also memorandum (No.2) portion of which is underlined. May I ask your ruling on this under Section 13 of the Audit Act.

First: A person to secure protection of a mining claim for a transfer, sees fit to pass on to the Recorder an N.S.F. cheque which in some cases, are weeks and months in being taken up, if at all.

Second: Is Mr. Gibson's law good when he states that a fraudulent transaction of this kind is proper to protect the interests, as he suggests, of an innocent party.

Third: A purchaser of a transfer should, as he would do in respect to all other transfers, make sure that he had a legal title.

Fourth: I maintain that the caution of the Mining Recorder as made by our Mr. Train is well within our province.

All of which is respectfully submitted.

Yours very truly,

T. R. JENNINGS,
Acting Provincial Auditor.

DEPARTMENT OF ATTORNEY GENERAL
Toronto 5, January 9th, 1934.

My Dear Sir: *Re Mining Claims*

Where a mining claim is recorded and a cheque accepted, and the claim is then transferred by the Mining Recorder to an innocent purchaser for value, even if the original cheque for the recording is returned dishonoured, the claim can hardly be cancelled as against such purchaser. What is needed, however, is a little more care on the part of the Mining Recorder. Where he records a claim, he is entitled to be paid his fees in legal tender, and, if he is offered a cheque, I suppose it would be his right to insist on a marked cheque, or to postpone the recording until the cheque has been honoured. Section 60 of the Mining Act, which deals with recording of claims, says:

> "and with the application shall be paid the prescribed fee." (subsection 1).

This, of course, must mean payment in legal tender, and to protect himself, the Mining Recorder could in all cases (and should in doubtful ones) insist on that kind of payment.

As I see it, the innocent purchaser has his transfer noted by the Mining Recorder, and there is nothing on the record to show that the recording fee had been paid by a bad cheque, so surely he has done everything he can do to ensure that he gets good title.

Answering your numbered paragraphs:

1. This is a statement of fact.

2. I think I have answered this above.

3. I do not think that the purchaser of a transfer would know anything about a dishonoured cheque, nor do I think he would be affected by this.

4. With regard to the Mining Recorder, as I have stated above, I think he should be more careful.

The copy of the report to The Honourable the Minister of Mines, with attachments, is returned.

Yours faithfully,

E. Bayly,
Deputy Attorney General

T. R. Jennings, Esq.,
Acting Provincial Auditor,
Parliament Buildings.

C

OVER-RULINGS

Re Temporary Salaries Payable from Permanent Salaries Appropriations

PROVINCIAL AUDITOR'S OFFICE
Toronto, November 16th, 1933.

MEMO FOR MR. C. MAGONE,
Department of Attorney General.

Dear Sir:

I am returning this pay-list as no arrangement has been made for paying Main Office and the Registrar's Office temporary salaries.

Yours truly,

W. A. GLOCKLING,
For Provincial Auditor

DEPARTMENT OF ATTORNEY GENERAL
Toronto 5, November 18th, 1933.

Dear Sir:

The Provincial Auditor has refused to pay out of the appropriation for permanent salaries in the main office, Attorney General's Department the salaries of two temporary stenographers, and out of the appropriation for permanent salaries in the Registrar's Office, Supreme Court of Ontario, the salaries of several temporary clerks and stenographers.

The objection taken by the auditor is that there is no authority for the payment of such temporary salaries out of permanent salary votes. The answer to such objection is provided for by section 12 of the Audit Act, R.S.O. 1927, chapter 25, which provides as follows:

> 12. "Where any money is voted for salaries of officers or clerks in any branch of the Government Service and in consequence of the death or resignation of any such officer or clerk, or through a vacancy otherwise caused, any part of such money is not required for the payment of salaries but is required for the remuneration of persons employed to perform the work in such branches during the vacancy, the same may be used for that purpose and any person temporarily employed may be paid out of the appropriation available on account of any such vacancy at such rate not exceeding the allowance which was payable to such officer or clerk whose office may be vacant, as may be determined by the head of the Department or by the Lieutenant-Governor in Council."

It is submitted, therefore, that the salaries of such temporary clerks and stenographers are payable out of the appropriation for permanent salary votes if by so doing such appropriation would not be overdrawn. It is further submitted that the appropriation for permanent salary votes is sufficient to pay these salaries.

The undersigned therefore recommends that pursuant to the provisions of the Audit Act, R.S.O. 1927, chapter 25, section 13 (c), that the question be submitted to the Treasury Board for its determination, and that the Auditor be ordered to issue the said salary cheques and charge them against the appropriation for permanent salaries.

Attached hereto is a copy of the memorandum from the Provincial Auditor refusing payment of the above salaries.

Yours faithfully,

E. BAYLY,
Deputy Attorney General

THE HONORABLE GEORGE S. HENRY,
Chairman of the Treasury Board.
Parliament Buildings.

DEPARTMENT OF ATTORNEY GENERAL
Toronto 5, November 18th, 1933.

Dear Sir:

Referring to your objection to the payment of temporary salaries in the main office, and Registrar's Office, Supreme Court of Ontario, out of the permanent salary votes, I beg to advise you that this matter will be referred to the Treasury Board for its determination.

Attached hereto is a copy of the memorandum submitted to the Treasury Board.

Yours faithfully,

E. BAYLY,
Deputy Attorney General.

T. R. JENNINGS, ESQ.,
Acting Provincial Auditor,
Parliament Buildings.

PROVINCIAL AUDITOR'S OFFICE
Toronto, December 1st, 1933.

HONORABLE GEORGE S. HENRY.
Chairman of the Treasury Board.

Dear Sir:

I have received a communication from the Deputy Attorney General this a.m. notifying me that my objection to temporary salaries being paid from permanent votes has been referred to your Board for a ruling.

Permanent salaries formerly were voted individually and where an officer or clerk dropped out, Section 12 of the Audit Act was quite easily applied, but since the advent of the Budget Committee from whose deliberations the Supplementary Estimates were revised, as also the present Estimates for the present fiscal year, distinctly makes provision for a bulk vote (not individual) for the permanent staff and a bulk vote for the temporary staff, and in our opinion Section 12 of the Audit Act would not apply.

If departments are lax in making provision for temporary help such as you will note under Vote 12, item 6, Registrar's Office, Supreme Court of Ontario, the onus is on the department and not on the Audit Office for any disturbance that may follow.

Yours respectfully,

T. R. JENNINGS,
Acting Provincial Auditor

EXECUTIVE COUNCIL OFFICE

Copy of a Minute of the Treasury Board, dated the 6th day of December, A.D. 1933

A difference having arisen between the Acting Provincial Auditor and the Department of the Attorney General, as to payment out of the appropriation for permanent salaries in the main office, Attorney General's Department and in the Registrar's Office, Supreme Court of Ontario, of the salaries of several temporary clerks and stenographers, and the matter having been referred by the Attorney General for the determination of the Treasury Board under the provisions of Clause C, Subsection 1, of Section 13, of The Audit Act, Chapter 25, R.S.O. 1927.

Upon consideration of the letter of the Acting Provincial Auditor and the letter submitted by the Honourable the Attorney General, the Treasury Board is of opinion that the Auditor's objections are insufficient and directs that the Auditor be ordered to issue the said salary cheques and charge them against the appropriation for permanent salaries.

Certified,

C. F. BULMER,
Clerk, Treasury Board.

Re Payment for Damages to Car

DEPARTMENT OF ATTORNEY GENERAL
Toronto 5, December 28th 1933.

My Dear Dr. Colquhoun:

I have your memorandum of December 21st and enclosures, which I now return. The Government is not liable for negligence and on the circumstances explained to you by the Principal of the Northern Academy at Monteith, I should doubt if there was any negligence whatever in connection with the action of Government Officials, although the driver of the truck which broke down the line, would probably be guilty of negligence.

Although the garage bill is for $44, the estimate made by the Principal is $15. I should think that about one-half of his claim might be offered to Mr. Johnson, without prejudice.

This latter, of course, is not legal opinion, but it is what I would be inclined to recommend to my own Minister, had the claim been made against this Department.

Yours faithfully,

E. BAYLY,
Deputy Attorney General.

A. H. U. COLQUHOUN, ESQ., LL.D.,
Deputy Minister of Education.
Parliament Buildings.

OFFICE OF PROVINCIAL AUDITOR,
February 20th, 1934.

MEMORANDUM FOR DEPUTY MINISTER OF EDUCATION:

Re Requisition No. 766.

I cannot see how the Government is responsible in any way for the payment of the attached account for damages to car.

T. R. JENNINGS,
Acting Provincial Auditor.

DEPARTMENT OF EDUCATION.

MEMORANDUM FOR HON. GEORGE S. HENRY:

On the legal opinion furnished by the late Edward Bayly, you approved, January 5, of paying half of the damage, namely, $22.13, done to a car on the road at the Monteith Academy. The Audit Office has doubts about the Government being liable. Will you kindly put your signature on the accompanying memorandum to Mr. Jennings, with instructions to pay?

A. H. U. COLQUHOUN,
Deputy Minister.

February 21st, 1934.

OFFICE OF PROVINCIAL AUDITOR,
Toronto, February 23rd, 1934.

MEMORANDUM FOR DR. A. H. U. COLQUHOUN,
Deputy Minister of Education.

Re Damage Claim of Kelso Johnston.

Referring to your memorandum of the 21st instant, addressed to the Honourable Geo. S. Henry, may I respectfully draw to your attention that the late Mr. Edward Bayly, Deputy Attorney General, gave a legal opinion under the date of December 28th, 1933, in the following words:

"The Government is not liable for negligence."

In view of the ruling of the late Mr. Bayly as above quoted, I am returning herewith your requisition No. 766 in favor of Kelso Johnston for $22.13 as the Auditor has no discretionary powers to authorize the issue of a cheque for a claim not payable by the Province.

G. A. BROWN,
Provincial Auditor.

DEPARTMENT OF EDUCATION.

MEMORANDUM FOR THE AUDITOR:

In the matter of Requisition No. 766, Department of Education, dated February 13th, 1934, re the claim of Kelso Johnston for settlement of claim for damages to car I have carefully considered your memorandum and am referring the matter to the Treasury Board for consideration under the provisions of Section 13 (1) (a) of the Audit Act.

GEO. S. HENRY,
Minister of Education.

Toronto, March 7th, 1934.

DEPARTMENT OF EDUCATION.

MEMORANDUM FOR THE TREASURY BOARD:

Under Requisition No. 766, Department of Education, dated February 13th, 1934, it was proposed to pay Kelso Johnston, Goldlands P.O., Ontario, the sum of $22.13 in settlement of his claim for damages to his car attributed to electric wires running over the highway at the Northern Academy, Monteith. This is half the amount claimed by Mr. Johnston.

The case was submitted to the late Mr. Edward Bayly, Deputy Attorney General, who, in his report, stated that "The Government is not liable for negligence." In his statement he also intimated that he thought "that about one-half of his claim might be offered to Mr. Johnston without prejudice." In making this suggestion he pointed out that he would have been inclined to recommend this course to his own Minister had the claim been made against his Department.

I submit that the case properly comes within the provisions of Section 13 (1) (2) of the Audit Act and that in view of the opinion of the Deputy Attorney General the cheque should be issued.

GEO. S. HENRY,
Toronto, March 7, 1934. *Minister of Education.*

EXECUTIVE COUNCIL OFFICE

Copy of a Minute of the Treasury Board, dated the
10th day of March, A.D., 1934

A difference having arisen between the Provincial Auditor and the Department of Education, as to payment out of the appropriation for Contingencies, Northern Academy, Monteith, Vote 55, Item 3, the sum of Twenty-two Dollars and Thirteen Cents ($22.13) in settlement of claim by Kelso Johnston, Esq., Goldlands P.O., Ontario, for damages to his car attributed to electric wires running over the highway at the Northern Academy, Monteith, and the matter having been referred by the Minister of Education for the determination of the Treasury Board under the provisions of Clause C, Sub-section 1, of Section 13, of The Audit Act, Chapter 25, R.S.O. 1927.

Upon consideration of the memoranda submitted by the Provincial Auditor and the Honourable the Minister of Education, the Treasury Board is of opinion that the Auditor's objections are insufficient and directs that the Auditor be ordered to issue a cheque forthwith for the sum of Twenty-Two Dollars and Thirteen Cents ($22.13) in favour of the said Kelso Johnston, Esq.

Certified,

C. F. BULMER,
Clerk, Treasury Board.

Re Purchase of Copies of Book—"Cry Havoc"

PROVINCIAL AUDITOR'S OFFICE,
Toronto, February 22nd, 1934.

MEMORANDUM FOR DR. A. H. U. COLQUHOUN.
Deputy Minister of Education.

Departmental requisition No. 771 in favor of Doubleday, Doran and Gundy Ltd. for $750.00 for the purchase of 1,000 copies of "Cry Havoc" is again returned as not being properly chargeable to the appropriation, Vote 33, item 2 —"Preparation of Text Books," in view of the fact that an appropriation had already been provided by Special Warrant for the purchase of copies of this particular book.

May I respectfully refer you to section 24 of The Audit Act.

Treasury Voucher No. 211804 returned herewith.

G. A. BROWN.
Provincial Audit.

DEPARTMENT OF EDUCATION

MEMORANDUM FOR THE AUDITOR:

In the matter of Requisition No. 771, Department of Education, after considering your memorandum of February 19th in which you claim that Vote 33, Item 2, "Preparation of text-books, etc.," would not appear to be the proper Vote to charge the attached account, in accordance with the provisions of Section 13 (1) (c) of the Audit Act, I am referring the matter to the Treasury Board.

GEO. S. HENRY,
Minister of Education.

Toronto, March 6th, 1934.

EXECUTIVE COUNCIL OFFICE

Copy of a Minute of the Treasury Board, dated the
15th day of March, A.D., 1934

A difference having arisen between the Provincial Auditor and the Department of Education, as to the charging of $750.00 for the purchase of 1,000 copies of an abridged edition of "Cry Havoc" against Vote 33, Item 2, which is defined as "Preparation of text-books, including plates, etc., services, travelling expenses and contingencies." There are several details included under this item, one of which reads "Books, magazines, papers, plates — $1,000," and the matter having been referred by the Minister of Education for the determination of the Treasury Board under the provisions of Clause C, Sub-section 1, of Section 13, of The Audit Act, Chapter 25, R.S.O. 1927.

Upon consideration of the memoranda submitted by the Provincial Auditor and the Honourable the Minister of Education, the Treasury Board is of opinion that the Auditor's objections are insufficient and directs that the Auditor do issue a cheque forthwith for the sum of $750.00 for the purchase of 1.000 copies of "Cry Havoc" and charge same against Vote 33, Item 2.

Certified,

C. F. Bulmer,
Clerk, Treasury Board.

D

TREASURY BOARD MINUTES

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TREASURY BOARD MINUTES

STATEMENT OF TREASURY BOARD MINUTES ISSUED FOR EXPENDITURES IN EXCESS OF APPROPRIATIONS DURING THE FISCAL YEAR ENDED OCTOBER 31st, 1934

Lieutenant-Governor's Office

	Warrant	Expended
Salaries	$758 33	$758 30
Allowance for contingencies	1,000 00	1,000 00

Legislation

Stationery, including Printing Paper, Printing Bills, etc.	10,000 00	985 29
Clerk of the Crown in chancery, permanent salaries	233 32	233 32

Prime Minister's Department

Main Office—		
Salaries	2,978 53	2,978 53
Sundry Investigations	8.000 00	7,807 33
Office of Executive Council, salaries	399 94	399 94
Tourist and Publicity Bureau, printing and distributing booklets, advertising, etc.	11,058 88	8,314 27
Office of King's Printer—		
Contingencies	37 22	37 22
Official Gazette	842 60	842 60

Attorney General's Department

Main Office—		
Contingencies	3,400 00	2,970 74
Crown Counsel Prosecutions	11,580 00	9,789 27
Commissions and Sundry Investigations	21,279 00	19,112 90
Compassionate Allowances for Incapacitated Officers	420 00	420 00
Grant to Conference on Improvings Laws	600 00	600 00
Law Library, books, reports, etc.	100 00	99 06
Supreme Court, Master's Office, salaries	631 51	631 51
Shorthand Reporters, contingencies	2,900 00	2,790 31
Land Titles Office, contingencies	100 00	100 13
Local Master of Titles—		
Salaries and office expenses	100 00	97 44
Forms, copying and contingencies	450 00	355 56
Audit of Criminal Justice Accounts Branch—		
Revision of Voters' Lists	200 00	62 37
Counties and Cities, Administration of Justice	10,500 00	10,022 67
Districts, salaries	35,000 00	27,225 81
Police Magistrates, salaries and contingencies	33,000 00	32,108 83
Office of Inspector of Legal Offices—		
Typewriters, office equipment, etc., for Judicial Officers and Local Masters of Titles	500 00	474 89
Law Enforcement	67,000 00	25,060 48
Ontario Securities Commission, contingencies	7,300 00	6,584 76
Workmen's Compensation Board, compensation, etc., workmen injured in Government work	70,000 00	51,484 07
Hydro-Electric Power Commission—		
Niagara System, Transmission Lines	140,500 00	140,500 00
Eastern Ontario System—		
Transformer and Distributing Stations	65,000 00	65,000 00
Transmission Lines of all voltages	364,550 00	364,550 00
Thunder Bay System, Transformer Stations	33,000 00	33,000 00
Northern System, Transmission Lines of all voltages	22,847 00	22,847 00
Miscellaneous, Administration and service building	48,000 00	48,000 00

Insurance Department

Salaries	412 50	4 87
Contingencies	5,840 00	5,795 42

TREASURY BOARD MINUTES—Continued

Education Department

	Warrant	Expended
Main Office—		
Contingencies	$2,650 00	$2,623 35
Proportion of cost of Minister's Report	300 00	260 49
Advertising in educational and other papers	8,500 00	8,477 84
Legislative Library, purchase of books, etc	500 00	397 53
Public and Separate School Education—		
Assisted Public and Separate Schools, grants and contingencies	20.000 00	19,904 23
Redemption of Debentures	3.600 00	3,473 42
Kindergarten Schools, grants and contingencies	1.450 00	1,182 86
Agricultural and Horticultural Grants to School Boards, Teachers, etc.	54,000 00	50,534 63
Industrial Arts, Manual Training and Household Science, grants to Boards and Teachers, etc	6,600 00	6,386 98
Correspondence Courses by Itinerant Teachers for pupils in isolated districts	6.500 00	3,663 65
Auxiliary Classes, grants and contingencies	4.300 00	4.242 67
Continuation Schools, grants and contingencies	12.800 00	7,349 79
Fifth Classes, grants and contingencies	13,500 00	13.309 88
Grants to Art Departments and Teachers in Art, etc	1,400 00	1.322 13
Grants to School Boards, Teachers, etc., to encourage courses in Music	28.200 00	28,118 08
Inspection of Schools Branch, travelling and moving expenses of Inspectors	7.500 00	7,173 61
Departmental Examinations Branch, Assistants	12.000 00	8.399 08
Text Books Branch, Subventions to Publishers	5.000 00	4.898 06
Training Schools—		
Travelling, moving expenses and contingencies	200 00	91 23
Grants to Teachers engaged in Model School Training	1.500 00	1,467 66
Toronto Normal and Model Schools—		
Contingencies	1.700 00	1.699 96
Apparatus, chemicals, etc	150 00	88 05
Maintenance	1.250 00	390 71
Ottawa Normal and Model Schools—		
Contingencies	700 00	668 01
Apparatus, chemicals, etc	750 00	680 06
Payment to Ottawa Public School Board	40 00	40 00
Maintenance	1.900 00	1.738 65
London Normal School—		
Contingencies	550 00	488 31
Physical Training and Athletic Supplies	100 00	41 48
Maintenance	350 00	184 42
Hamilton Normal School—		
Salaries	200 00	175 00
Contingencies	1.125 00	670 03
Apparatus, Chemicals, etc	250 00	177 96
Physical Training and Athletic Supplies	200 00	153 27
Maintenance	600 00	442 67
Peterborough Normal School—		
Contingencies	600 00	305 27
Apparatus, Chemicals, etc	150 00	62 30
Payment to Peterborough Board of Education	180 00	180 00
Maintenance	450 00	307 96
Stratford Normal School—		
Contingencies	700 00	577 85
Maintenance	650 00	256 39
North Bay Normal School—		
Contingencies	750 00	580 48
Maintenance	900 00	396 01
University of Ottawa Normal School—		
Salaries	975 00	975 00
Contingencies	1,100 00	141 43
Sturgeon Falls Model School, maintenance	650 00	549 08
Sandwich Model School, maintenance	150 00	93 79
Embrun Model School, maintenance	100 00	96 91

TREASURY BOARD MINUTES—Continued

Education Department—Continued

	Warrant	Expended
High Schools and Collegiate Institutes Branch—		
Grants, High Schools and Collegiate Institutes, including districts	$43.600 00	$43.043 71
High School Cadet Corps	450 00	380 00
School Boards, etc., to encourage courses of Music	650 00	432 00
Travelling and moving expenses	500 00	78 37
Public Libraries Branch, Travelling Libraries, cost of books, etc	600 00	411 85
Vocational Education Branch—		
Agricultural Training in High Schools, etc	550 00	288 34
Day and Evening Classes, grants and contingencies	355.000 00	349,989 94
Travelling expenses	500 00	189 82
Ontario Training College for Technical Teachers—		
Payment to Hamilton Board of Education	275 00	275 00
Maintenance	300 00	185 89
Superannuated Teachers, compassionate allowances, ex-teachers	200 00	21 53
Belleville School for the Deaf—		
Salaries, permanent	1.000 00	772 09
Expenses	1.000 00	618 25

Lands and Forests Department

General—		
Moving expenses of Officials	50 00	48 95
Back to the Land Movement	30.000 00	21.033 07
Foresters and Scalers, Forest Ranging	25.000 00	24.035 98
Forestry Branch—		
Main Office, salaries, permanent	1,987 50	1,987 50
Reforestration	25.000 00	20.788 05
Fire Ranging	620.000 00	591,895 07
Surveys Branch, surveys	15.000 00	13.690 93

Northern Development Department

Colonization Roads Branch—		
Salaries, Permanent	487 50	487 50
Contingencies	1.000 00	565 49
Storage and Insurance	200 00	43 88

Mines Department

Main Office, Contingencies	5.000 00	4.488 49
General, salaries, equipment, etc., field and other assistants	10.000 00	6,775 02
Gas and Oil Well Inspectors, Services, etc	100 00	19 15
Mining Recorders, services and expenses	3.500 00	3.100 57
Draughtsman, North Bay, services and expenses	950 00	774 75

Game and Fisheries Department

Biological and Fish Culture Branch, Hatcheries, services and expenses	22.000 00	20.471 27
General—		
Erecting Ponds, Buildings, etc	3.000 00	475 34
Purchase or building of and repairs to boats, etc	4.000 00	3,604 57

Public Works Department

Main Office—		
Insurance	18.000 00	17.852 75
Compensation, etc., for injured workmen	2,650 00	2.160 00
Government Buildings, Maintenance and Repairs—		
General Superintendence, services, travelling and other expenses	500 00	33 21
Government House—		
Pay list, gardeners, firemen, etc	3.000 00	2.654 08
Repairs, contingencies	5.000 00	1.834 11

TREASURY BOARD MINUTES—Continued

Public Works Department—Continued

Government Buildings. Maintenance and repairs—Continued	Warrant	Expended
Parliament and Departmental Buildings—		
Water and fuel	$11,000 00	$10,449 18
Electric power, light and gas	8,000 00	7,924 52
Supplies, tools, etc.	1,000 00	972 42
Caretakers of grounds, etc	21,000 00	6,576 62
Repairs and cleaning of buildings, etc	3,000 00	2,379 48
Furniture and furnishings, etc	6,800 00	5,825 22
Interior alterations	11,450 00	11,402 69
Painting outside and inside work	6,000 00	5,986 51
Telephone service	15,970 00	15,812 83
Motion Picture Studio, Trenton, repairs and incidentals	1,000 00	883 17
110 University Avenue, repairs, etc	300 00	292 61
Osgoode Hall; Fuel, light, water and power	290 00	127 63
Educational Buildings—		
Toronto Normal and Model Schools, repairs and incidentals	750 00	734 87
Ottawa Normal and Model Schools, repairs and incidentals	750 00	499 46
London Normal School, repairs and incidentals	250 00	230 29
Hamilton Normal School, repairs and incidentals	250 00	45 29
Stratford Normal School, repairs and incidentals	12,300 00	11,881 09
Belleville School for the Deaf, repairs and incidentals	20,000 00	16,749 10
General, repairs, etc., boiler and heating plants in Educational Buildings	6,100 00	3,010 57
Agriculture Buildings—		
Ontario Agriculture College, Guelph, repairs and incidentals	3,850 00	3,131 31
Ontario Veterinary College, Guelph, repairs and incidentals	950 00	633 87
Horticultural Experimental Station, repairs and incidentals	150 00	142 83
Kemptville Agricultural School, repairs and incidentals	4,450 00	4,315 09
Welfare Buildings—		
Ontario Training School for Boys, repairs and incidentals	7,250 00	6,517 70
District Buildings—		
Algoma, repairs and incidentals	1,850 00	529 93
Kenora, repairs and incidentals	2,200 00	1,384 30
Rainy River, repairs and incidentals	2,500 00	680 34
Sudbury, repairs and incidentals	1,400 00	79 44
Thunder Bay, repairs and incidentals	350 00	305 44
General, repairs, installation of boilers, etc	7,200 00	2,517 37
General Buildings; Ontario Government Building C.N.E., repairs and installing exhibits, etc	3,400 00	3,394 25
Public Works and Bridges—		
Maitenance of Locks, Dams, etc	10,000 00	5,705 96
Surveys and Inspections	1,000 00	994 60
Storage Dams	10,000 00	6,866 23
Municipal Bridges	74,100 00	50,440 46
Government Buildings. Construction—		
Ontario Hospitals and Reformatories; additions, alterations and Equipment	30,000 00	5,603 42
Parliament Buildings, painting East Block	3,000 00	2,987 22
Penetang Hospital, new boiler, stack and stoker	1,500 00	1,149 35
Woodstock Hospital, new buildings	600 00	481 21
Industrial Farm, Burwash, new buildings for men	110,000 00	83,373 53
Industrial Farm, Fort William, pipes, pumps, etc., water supply	200 00	137 33
Girls Training School, Galt, construction of works, etc	6,175 00	6,058 41
Belleville School for the Deaf, new dormitory building	20,000 00	17,159 20
Ontario Agriculture College, Guelph—		
Steam Distributing Mains	10,000 00	8,515 68
Extension of electric cables	9,000 00	8,557 51
Purchase of property	94,100 00	88,343 11

TREASURY BOARD MINUTES—Continued

Highways Department

	Warrant	Expended
Main Office—		
Salaries, permanent	$25,000 00	$23,219 48
Contingencies	28.000 00	19,133 78
Motor Vehicles Branch—		
Salaries, permanent	14,625 50	14,534 88
Contingencies	11,000 00	6,191 71
Safety Committee, cost of advertising	17.850 00	17,552 54
Automobile markers and supplies	14,425 00	13,944 01
Service and expenses re Highway Traffic Act, etc	6,388 13	6,291 61

Health Department

	Warrant	Expended
Main Office—		
Cancer control, services and expenses re operation of Radium Emanation Plant	30,000 00	26,220 02
District Officers of Health, services, equipment and expenses	5,000 00	1,258 81
Maternal and Child Hygiene, grants to municipalities operating system of school medical inspection, etc	11,000 00	10,686 85
Dental Service Branch—		
Services and expenses, etc	4,000 00	3,715 93
Grants to Municipalities re school and community dental services	1,000 00	8 99
Preventable Diseases—		
Salaries	650 00	650 00
Outbreaks of diseases, etc	78,000 00	77,226 10
Services and expenses re treatment of patients	30.500 00	30,248 60
Grants, operating Venereal Diseases Clinics	500 00	500 00
Industrial Hygiene—		
Salaries	1,116 64	1,116 64
Public Health Education—		
Salaries	375 00	375 00
Contingencies	5.500 00	398 13
Grants, etc, General Hospitals and Charities		
General Hospitals	126,573 78	126 525 28
Homes for Incurables	12,115 68	12,115 68
Maintenance of patients in Municipal Sanatoria for Consumptives	24,349 83	24,349 83
Travelling and incidental expenses for removal. etc.. indigent patients	3,500 00	3,057 55
Hospital for Sick Children. Toronto, expenses incurred re Out patients	2.835 10	2,835 10
Special grants to municipalities	5.000 00	4,547 04
General expenses. Ontario Hospitals—		
Grants to recovered indigent patients	1.200 00	994 07
Travelling expenses, Social Service workers	1.900 00	1,699 30
Printing and stationery for institutions	7.000 00	6,933 76
Treatment of patients in hospitals. etc	500 00	171 00
Unforeseen and unprovided	2,300 00	1.306 23
Mental Hospitals—		
Brockville:		
Maintenance	9.900 00	9,302 77
Repairs to buildings	69.000 00	20.879 03
Cobourg:		
Salaries	300 00	234 92
Maintenance	19.800 00	19.446 50
Repairs to Buildings, etc	15.000 00	12.411 92
Hamilton:		
Maintenance	24.200 00	9.877 68
Repairs to Buildings, etc	60.000 00	46,941 72

TREASURY BOARD MINUTES—Continued

Health Department—Continued

Mental Hospitals—Continued	Warrant	Expended
Kingston:		
Salaries	$2,000 00	$549 01
Maintenance	43.800 00	42,946 41
Repairs to buildings, etc.	42.000 00	40,147 44
London:		
Maintenance	50.000 00	49.629 38
Repairs to buildings,etc.	58.000 00	36,082 59
Mimico:		
Salaries	4,600 00	4,066 30
Maintenance	77.000 00	67.105 28
Repairs to buildings, etc.	184.400 00	172.642 73
Orillia:		
Salaries	2,800 00	1.978 22
Maintenance	20,000 00	19.801 82
Repairs to buildings	87.000 00	33.559 91
Penetanguishene:		
Salaries	11.200 00	10.658 19
Maintenance	44,000 00	43,421 25
Repairs to buildings	53,400 00	27.016 01
Toronto:		
Salaries	2.197 68	2,197 68
Maintenance	17,000 00	16.075 25
Repairs to buildings, etc.	35,000 00	16,531 54
Whitby:		
Maintenance	36,400 00	35.499 18
Repairs to buildings, etc.	42.650 00	42,157 10
Woodstock:		
Salaries	1.900 00	1.797 43
Maintenance	20.000 00	18.242 65
Repairs to buildings, etc.	26.000 00	7.356 88
Toronto Psychiatric:		
Maintenance	1.000 00	873 13
Repairs to buildings, etc.	1.000 00	274 65

Labour Department

Main Office—		
Permanent Salaries	467 60	467 60
Investigations, library, publications, etc.	575 00	472 85
Boiler Inspection Branch, contingencies	2.858 86	2.836 56
Employment offices, salaries, permanent	2,791 53	2,791 53
Minimum Wage Board—		
Permanent salaries	4.038 60	4,038 60
Contingencies	4.274 04	3,777 57

Public Welfare Department

Main Office—		
Salaries, permanent	2.900 00	2.744 26
Maintenance of Indigents from unorganized territory	620 00	618 20
Grants—		
Refuges	46.600 00	46.544 40
Orphanages	22.400 00	22.341 40
Industrial Schools	42.314 75	42.299 25
Children's Aid Branch—		
Services and expenses re Children's Protection Act	10,700 00	11.490 48
Grant, Association of Children's Aid Societies	300 00	300 00
Contingencies	2,797 50	2,260 95
Ontario Training School for Boys, Bowmanville—		
Operating expenses	10.200 00	10.199 45
Repairs to Buildings, etc.	1.200 00	317 12
Ontario Training School for Girls, Galt—		
Salaries, permanent	3.650 00	3.059 69
Operating expenses	7.750 00	7.375 35

TREASURY BOARD MINUTES—Continued

Public Welfare Department—Continued

	Warrant	Expended
Mothers' Allowances Commission—		
Contingencies	$9.225 00	$8.260 29
Allowances	250,000 00	59,513 03
Old Age Pensions Commission—		
Salaries, permanent	1.219 95	1,219 95
Contingencies	10.500 00	9,725 58
Allowances	2,000.000 00	257,241 55

Treasury Department

Main Office, Fidelity Bonds	1.122 47	1,066 72
Office of Controller of Revenue, fees and commissions	10.000 00	9,695 65

Provincial Auditor's Office

Contingencies	14,100 00	13,440 96

Provincial Secretary's Department

Reformatories and Prisons Branch—		
Main Office, contingencies	100 00	100 78
General:		
Railway fares and clothing, discharged prisoners	750 00	376 40
Printing and stationery	1.000 00	992 19
Treatment of patients in hospitals, etc	750 00	473 05
Guelph Reformatory:		
Expenses	15.000 00	14,463 56
Repairs to buildings, etc	3,000 00	2.726 85
Mimico Reformatory:		
Salaries	400 00	312 10
Expenses	3.500 00	2,324 79
Repairs to buildings, etc	2.850 00	2.826 89
Mercer Reformatory:		
Repairs to buildings, etc	1.200 00	1,145 41
Burwash Industrial Farm, expenses	12,000 00	8.600 70
Fort William Industrial Farm:		
Salaries	500 00	449 96
Expenses	6.750 00	6.614 94

Agriculture Department

Main Office salaries	43 00	42 09
General—		
Services and expenses in connection with agricultural work	16.412 37	12.536 75
To promote Marketing Board	1.289 38	1.289 38
Inspection of apiaries	5.950 00	3.659 00
Grants occasioned by unassessable crown lands, Union school No. 1, Clinton and Louth	97 68	97 68
Grant, Kemptville Public School	30 45	30 45
Statistics and Publication Branch, contingencies	1.000 00	238 36
Agricultural and Horticultural Societies Branch—		
Contingencies	174 69	174 69
Judges services, travelling and other expenses	306 68	299 84
Field Crop Competitions	3.000 00	1.062 13
To encourage local plowing matches	4.900 00	4.670 84
Institutes Branch, salaries	1.736 54	1.736 54
Dairy Branch, dairy instruction and inspection	8.800 00	8.124 19
Fruit Branch—		
Apple Maggot Survey	1.412 37	1.411 69
Pre-cooling station, Brighton, equipment, services and expenses	60 70	60 70
Horticultural Experimental Station, Vineland, salaries	71 00	70 83
Crops, Co-operation and Markets Branch—		
Salaries	8.700 00	6.153 85
Loans in accordance with Co-operative Marketing Loan Act	55.000 00	22.500 00
Kemptville Agricultural School, wages, travelling expenses	5.000 00	3.564 80
Western Ontario Experimental Farm, Ridgetown, purchase of stock and equipment, etc., and contingencies	5.612 43	5.612 43

TREASURY BOARD MINUTES—Continued

Agriculture Department—Continued

	Warrant	Expended
Ontario Agricultural College, Guelph—		
General Offices, Administrative Expenses—		
Temporary assistance	$36,887 50	$10,680 77
Provisions, laundry, etc	23,000 00	22,928 50
Furniture, furnishings, etc	2,000 00	1,994 13
Student labour	500 00	471 00
Purchase and maintenance of automobiles	3,000 00	2,102 76
Botany Division, salaries	1,350 00	1,018 74
Chemistry Division, salaries	900 00	261 28
Farm Economics Division, salaries	1,162 50	879 13
Extension Division, salaries	1,312 50	1,312 50
Animal Husbandry Division—		
Salaries	412 50	246 89
Expenses, purchase and maintenance of live stock	1,500 00	1,480 80
Experimental Dairy Division—		
Salaries	375 00	375 00
Expenses, purchase, hauling and manufacturing milk	2,500 00	1,298 84
Poultry Division, salaries	3,062 50	2,303 02
Horticulture Division—		
Salaries	1,500 00	428 73
Expenses:		
Permanent improvements	1,000 00	996 75
Wages, temporary help	1,000 00	938 19
Trees, plants, seeds, etc	500 00	323 19
Total Treasury Board Minutes	$7,176,441 26	$4,562,173 83

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SPECIAL WARRANTS

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SPECIAL WARRANTS

STATEMENT OF SPECIAL WARRANTS ISSUED DURING THE FISCAL YEAR ENDED OCTOBER 31st, 1934

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Prime Minister's Department				
	Ontario Research Foundation—				
November 14th, 1933.....	Warrant..	....	$2,100 00	$2,100 00	
	Funeral Expenses of the late Honourable E. A. Dunlop—				
January 30th, 1934.......	Warrant..	$1,372 26			
May 14th, 1934..........	"	950 00	$2.322 26	2,288 36	$33 90
	Royal Commission of Investigation into the purchase of certain properties by the Hydro-Electric Power Commission of Ontario—				
	Balance unexpended, 1932-33........................	9,841 63			
December 28th, 1933.....	Warrant..	6,000 00	15,841 63	15,000 00	841 63
	Canadian Legion of the British Empire Service League, grant—				
December 21st, 1933.....	Warrant..	1,500 00			
May 8th, 1934...........	"	1,500 00	3,000 00	3,000 00	
	Originals Club, to assist in defraying expenses of the first re-union of all survivors of the original 1st Canadian Contingent in the Great War, grant—				
January 16th, 1934.......	Warrant..	....	100 00	100 00	
	Ontario Rifle Association, grant towards the prize list of the annual matches—				
April 10th, 1934.........	Warrant..	....	1,000 00	1,000 00	
	Ontario Safety League, grant—				
April 17th, 1934.........	Warrant..	....	8,000 00	8,000 00	
	United Empire Loyalists Historical Exhibition, grant in aid of—				
April 17th, 1934.........	Warrant..	....	500 00	500 00	

May 1st, 1934	Canadian Red Cross, grant— Warrant		25,176 64	25,176 64
May 1st, 1934	Last Post Fund, grant— Warrant		1,000 00	1,000 00
May 8th, 1934	Navy League of Canada, grant— Warrant		1,000 00	1,000 00
May 22nd, 1934	Belleville Centennial and United Empire Loyalist Celebration, grant— Warrant		1,000 00	1,000 00
June 8th, 1934	Alexander Muir Memorial Fund, grant— Warrant		1,000 00	1,000 00
May 29th, 1934	Port Hope Centennial, grant towards expenses— Warrant		300 00	300 00
June 8th, 1934	Ladies Auxiliary of the Canadian Legion, Ontario Provincial Command. grant— Warrant		200 00	200 00
June 8th, 1934	Ontario Municipal Association, grant— Warrant		400 00	400 00
June 18th, 1934	Canadian Legion of the British Empire Service League, Ontario Provincial Convention Committee, grant— Warrant		1,000 00	1,000 00
June 26th, 1934	Toronto Centennial Celebrations, grant— Warrant		23,000 00	23,000 00
June 26th, 1934	Cornwall Centennial Celebration, grant— Warrant		500 00	500 00
July 4th, 1934	Canadian General Committee of the British Empire Games, grant towards defraying the expenses of the said games in London, England— Warrant		5,000 00	5,000 00
June 28th, 1934	Trades and Labour Congress of Canada, to assist in defraying the expenses of their Jubilee Convention, September 10th-15th, 1934, grant— Warrant		1,000 00	1,000 00

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Attorney General's Department				
	Hon. W. E. Middleton, honorarium for services rendered as a Commissioner to enquire into and report upon the advisability or otherwise of making amendments to the Workmen's Compensation Act—				
December 12th, 1933	Warrant		1,500 00	1,500 00	
	Col. George A. Drew, and Granite Club, Ltd., to meet the payment of the accounts incurred on behalf of the delegates to the Interprovincial Conference with reference to the sale of securities—				
June 21st, 1934	Warrant		29 95	29 95	
	Justices of the Peace throughout the Province, salaries—				
November 16th, 1934	Warrant		2,854 60	2,829 94	24 66
	Hydro-Electric Power Commission, to pay expenditures on account of works for transmitting, transforming, making available for use, distributing, delivering and selling electrical power generated at Abitibi Canyon, to places at or near Kirkland Lake and Powell Township—				
November 14th, 1933	Warrant		750,000 00	750,000 00	
	Hydro-Electric Power Commission, to pay expenditures for the construction and installation of all transmission line extensions, transformer stations, steam generators, etc., necessary for supplying of power to the Abitibi Power and Paper Co., Ltd., at Smooth Rock Falls—				
October 23rd, 1934	Warrant		287,000 00	287,000 00	
	Hydro-Electric Power Commission, to pay expenditures on account of works to develop all power available at the outlets of Lake St. Joseph on the Albany River in the District of Patricia and for transforming and transmitting such power to places in the said district—				
October 23rd, 1934	Warrant		140,000 00	140,000 00	
	Insurance Department				
	Tilley, Johnston, Thomson and Parmenter, council retained to advise the Government concerning Dominion Insurance Legislations, involving				

January 12th, 1934	constitutional question and Provincial rights— Warrant		2,000 00	2.000 00	
	Education Department				
August 23rd, 1934	Institute Canadien Francais, Ottawa, grant— Warrant		200 00	200 00	
November 3rd, 1933	Corporation of the Town of Cobalt, High School Debentures, and interest due October 1st, 1933 and 1934, guaranteed by the Province of Ontario by Order-in-Council of December 7th, 1926— Warrant	2,276 80			
November 7th, 1934	"	2,276 80	4.553 60	4.553 60	
December 21st, 1933	Ontario Temperance Education Association, grant— Warrant		500 00	500 00	
January 25th, 1934	Urban School Trustees Association of the Province of Ontario, grant— Warrant		250 00	250 00	
	Board of Trustees, Royal Ontario Museum, cost of new building, etc.— Balance unexpended, 1932-33		183.797 61	20,000 00	163,797 61
January 30th, 1934	Purchase of book, "Cry Havoc," by Beverley Nichols, to be presented to the Elementary and Secondary Schools of the Province of Ontario— Warrant		3.750 00	3.750 00	
April 17th, 1934	Ontario School Trustees' and Ratepayers' Association, special grant— Warrant	1.000 00			
October 10th, 1934	"	1.000 00	2.000 00	2,000 00	
May 22nd, 1934	Canadian National Institute for the Blind, special grant— Warrant		10.000 00	10.000 00	
May 29th, 1934	University of Toronto to meet the deficit of the University of the academic year ending June 30th, 1934, grant— Warrant		150,000 00	150.000 00	
June 18th, 1934	Purchase and distribution of books for the Elementary and Secondary Schools of the Province of Ontario and to pay contingencies in respect to same— Warrant		4,000 00	3.000 00	1,000 00

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Lands and Forests Department				
	Payment of accounts in connection with hearings before the International Joint Commission—				
April 24th, 1934	Warrant		2,169 69	2,169 69	
	Canadian Lumbermen's Association, for assistance to the Canadian Hardwood Bureau for educational campaign work in the Old Country re Canadian hardwood, with special reference to Ontario Products—				
May 8th, 1934	Warrant		797 59	797 59	
	Expenses in connection with the inquiry into the Ontario Air Service—				
August 28th, 1934	Warrant	2,000 00			
October 12th, 1934	"	2,000 00			
November 7th, 1934	"	5,500 00	9,500 00	9,145 51	54 49
	Northern Development Department				
	Expenses re construction of Settlers' Roads in the Districts of North and South Cochrane and Temiskaming—				
	Balance unexpended, 1932-33		24,288 00	17,071 40	7,216 60
	Expenses re construction of a bridge on the Ferguson Highway at Round Lake, Con. 5, Marquis-Pacaud boundary—				
	Balance unexpended, 1932-33		30,643 93	9,792 08	20,851 85
	Expenses re construction and completion of the road between Larder Lake and Kirkland Lake—				
	Balance unexpended, 1932-33	605 95			
January 25th, 1934	Warrant	50,000 00	50,605 95	19,723 10	882 85
	Game and Fisheries Department				
	Jack Miner of Kingsville, Ontario, special services re Crown Game Preserve, grant—				
September 7th, 1934	Warrant		300 00	300 00	

	Public Works Department				
	Payment of accounts for exhibiting and expenses in connection with Departments at Central Canada Exhibition, Ottawa—				
	Balance unexpended, 1932-33		1420 37	502 31	918 06
	Special Relief Work—				
November 3rd, 1933	Warrant	25,000 00			
January 25th, 1934	"	25,000 00			
June 26th, 1934	"	5,000 00	55,000 00	54,889 05	110 95
	Payment of accounts for alterations and classroom equipment, Toronto Normal School—				
	Balance unexpended, 1932-33	1523 87			
January 30th, 1934	Warrant	1,000 00	2,523 87	2,433 73	90 14
	Payment to the Duncan Construction Co. for erection of new gaol, Sudbury—				
April 5th, 1934	Warrant		3,125 00	3,125 00	
	Ontario Hospital, Brockville, new boiler house, boiler stack, equipment, etc.—				
May 14th, 1934	Warrant		60,000 00	25,913 30	34,086 70
	Eastern Ontario Hospital for Mental Defectives, construction of works and buildings, furniture and furnishings, etc.—				
May 14th, 1934	Warrant		200,000 00	47,483 72	152,516 28
	Ontario Hospital, Hamilton, Nurses' Residence, including furniture and furnishings, etc.—				
May 14th, 1934	Warrant		100,000 00	23,394 66	76,605 34
	Ontario Hospital, London, new patients' building to accommodate 200 patients, including furniture and furnishings, etc.—				
May 14th, 1934	Warrant		200,000 00	21,340 43	178,659 57
	Ontario Hospital, Mimico, new patients' building to accommodate 150 patients, including furniture and furnishings, etc.—				
May 14th, 1934	Warrant		100,000 00	12,057 02	87,942 98
	Ontario Hospital, Mimico, extension to Nurses' Residence, furniture and furnishings, etc.—				
May 14th, 1934	Warrant		60,000 00	14,082 56	45,917 44

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Public Works Department—Continued				
	Ontario Hospital, Mimico, alterations to boiler house, including new boiler equipment—				
May 14th, 1934	Warrant		40,000 00	2,283 17	37,716 83
	Ontario Hospital, Woodstock, Nurses' Residence, including furniture and furnishings, etc.—				
May 14th, 1934	Warrant		150,000 00	12,769 23	137,230 77
	New Labour Bureau, office building construction, including equipment, etc.—				
May 14th, 1934	Warrant		135,000 00	116,940 15	18,059 85
	Industrial Farm, Fort William, to complete new Sewage Disposal Plant—				
May 29th, 1934	Warrant		1,500 00	1,393 12	106 88
	Ontario Veterinary College, Guelph, alterations to boiler room to provide additional accommodation—				
May 29th, 1934	Warrant		3,000 00	2,802 27	197 73
	Grant to Dominion Government to cover portion of capital cost and construction of roadway approaches of Hawkesbury-Grenville Inter-provincial Bridge—				
June 26th, 1934	Warrant		13,000 00	11,708 08	1,291 92
	Grant to Dominion Government re portion of maintenance cost of Hawkesbury-Grenville Inter-provincial Bridge for the year ending March 31st, 1934—				
June 26th, 1934	Warrant		587 00	587 00	
	Highways Department				
	Building, furnishing and operating Tourists' Bureaus at border points, also the cost of literature and road maps for the promotion and development of tourist traffic in Ontario—				
	Balance unexpended, 1932-33	4,547 53			
November 15th, 1933	Warrant	4,000 00			
June 8th, 1934	"	16,000 00	24,547 53	23,606 33	941 20

	Health Department				
	J. H. Sumbler, Chairman, Temiskaming Cemetery Commission, New Liskeard, Ontario—				
December 28th, 1933.....	Warrant..........	....	312 95	312 95	
	Ontario Hospital, Orillia, contribution to the cost of constructing a sidewalk on the east side of the King's Highway from the Town of Orillia to the Ontario Hospital—				
November 14th, 1933.....	Warrant..........	....	1,000 00	1,000 00	
	Grants to schools for education of children of Ontario Hospitals Staff—				
November 22nd, 1933.....	Warrant..........	....	4,000 00	3,800 56	199 44
	Lanark County House of Refuge, maintenance of inmates transferred from Ontario Hospital, Brockville—				
April 17th, 1934........	Warrant..........	3,044 46			
October 9th, 1934........	"	270 00	3,314 46	3,303 73	10 73
	Grant to the Municipality of the Village of Portsmouth towards the cost of maintenance of Mowat Avenue, a branch road to the Mowat Division of the Ontario Hospital, Kingston—				
June 26th, 1934.........	Warrant..........	....	100 00	100 00	
	Board of Directors, Fort William Sanatorium, in connection with the cost of construction of New Sanatorium for Consumptives at Fort William, grant—				
October 9th, 1934........	Warrant..........	....	30,000 00	30,000 00	
	Payment of account, Agar and Thompson, in the case of Williamson vs. Fisher—				
November 9th, 1934......	Warrant..........	....	750 00	750 00	
	Labour Department				
	Labour Educational Association of Ontario, special grant—				
April 17th, 1934........	Warrant..........	....	100 00	100 00	
	Order of Railway Conductors of America Convention Committee, special grant—				
May 14th, 1934.........	Warrant..........	....	50 00	50 00	
	Miss Laura Chartrant, "Le Foyer," Ottawa, special grant—				
May 29th, 1934.........	Warrant..........	....	300 00	300 00	

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Labour Department—Continued				
	National Labour Day Committee, Toronto, special grant—				
August 14th, 1934	Warrant		100 00	100 00	
	Toronto District Labour Council, to provide for meals for unemployed members of labour organizations participating in Labour Day parade to exhibition grounds—				
August 30th, 1934	Warrant		300 00	300 00	
	Public Welfare Department				
	Memorial wreaths for Community Remembrance Services in the Province of Ontario to be placed on War Memorials—				
November 14th, 1933	Warrant		2,050 00	2,029 25	20 75
	Expenses conducting a Crusade of Friendship and Fellowship throughout the Province of Ontario—				
November 22nd, 1933	Warrant		150 00	142 73	7 27
	Standard Relief Forms for the Municipalities of the Province, making application for residence certificates, registration forms and other vouchers—				
November 28th, 1933	Warrant	3,000 00			
April 17th, 1934	"	1,500 00			
October 2nd, 1934	"	1,800 00	6,300 00	5,821 23	478 77
	To provide for Indigents and burial of Indigents in unorganized territory and other expenditure incidental to public welfare for which no provision has been made—				
November 30th, 1933	Warrant	750 00			
May 8th, 1934	"	750 00			
October 2nd, 1934	"	400 00	1,900 00	1,823 18	76 82
	Soldiers' Aid Commission, to provide for payment of taxes in arrears on properties upon which mortgages have been held by the Commission, etc.—				
January 22nd, 1934	Warrant		1,600 00	1,576 71	23 29

	Mr. A. E. Collins, settlement of claims against the department re occupancy of 497 Sherbourne St., Toronto, by the Boys' Training School Club—				
June 18th, 1934	Warrant		135 00	135 00	
	Ontario Training School for Girls, Waterloo County, maintenance and repairs of buildings, roads, walks, grounds, fences, plumbing, steam, electric plants, etc., and contingencies—				
January 16th, 1934	Warrant	500 00			
May 29th, 1934	"	500 00	1,000 00	996 01	3 99
	Expenditures in connection with the enquiry under the Public Enquiries Act into the affairs of the Windsor Children's Aid Society—				
June 13th, 1934	Warrant		6,646 35	5,564 85	1,081 50
	Grant to Salvation Army to assist in carrying on its welfare work amongst immigrants—				
December 19th, 1933	Warrant		3,000 00	3,000 00	
	Grant to Ontario Society for Crippled Children for care of handicapped children in the Province of Ontario—				
April 17th, 1934	Warrant		8,000 00	8,000 00	
	Expenses of the Crippled Children's Crusade in the Province of Ontario—				
July 6th, 1934	Warrant		1,200 00	1,151 83	48 17
	Community Welfare Council of Ontario, grant to assist in developing public interest in social work—				
May 8th, 1934	Warrant		1,000 00	1,000 00	
	Canadian Conference on Social Work. grant to assist in the promotion of their fourth biennial conference—				
May 14th, 1934	Warrant		200 00	200 00	
	Soldiers' Aid Commission, grant to assist in providing direct relief to destitute families of war veterans—				
May 14th, 1934	Warrant		2,000 00	2,000 00	
	Canadian Council on Child and Family Welfare, grant to assist in its work in the Province of Ontario—				
June 13th, 1934	Warrant		1,000 00	1,000 00	
	Soldiers' Aid Commission, salaries of Teachers—				
June 28th, 1934	Warrant		1,200 00	1,200 00	

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Public Welfare Department—Continued				
	National Council of Young Men's Christian Associations of Canada, grant to cover fees and accommodation at school of leisure and recreation leadership, Lake Couchiching, Ontario—				
June 18th, 1934	Warrant		200 00	200 00	
	Boy Scouts Association, grant—				
June 26th, 1934	Warrant		500 00	500 00	
	Municipal Affairs Department				
	Salaries, travelling expenses, stationery, office equipment, supplies and contingencies—				
October 2nd, 1934	Warrant		6,000 00	3,082 83	2,917 17
	Treasury Department				
	F. Martin Turnbull, for special services rendered in the Treasury Department—				
December 19th, 1933	Warrant		500 00	500 00	
	Royal Insurance Co., Ltd., for robbery insurance on various branches of the service—				
January 12th, 1934	Warrant	384 75			
May 22nd, 1934	"	554 90	939 65	939 65	
	Technical Service Council, Toronto, grant for the year 1934—				
January 22nd, 1934	Warrant		3,000 00	3,000 00	
	Secretary's Department				
	Dr. Strain, Gore Bay, in payment of account of $100.00 for operation for appendicitis on Phyliss Davidson at the Gore Bay Gaol and $25.00 for hospitalization—				
May 22nd, 1934	Warrant		125 00	125 00	
	Arthur Harrington to meet liabilities arising out of an accident to him at Ontario Reformatory, Mimico, on July 15th, 1931—				
May 22nd, 1934	Warrant		300 00	300 00	

Agriculture Department

November 8th, 1933	Lambton Growers Cold Storage Limited, loan— Warrant		4,500 00	4,500 00	
January 9th, 1934	Oxford Fruit Co-operative Ltd., loan— Warrant		9,000 00	9,000 00	
April 17th, 1934	Ottawa Valley Packing Co., Ltd., loan— Warrant		20,000 00	20,000 00	
April 5th, 1934	First Co-operative Packers of Ontario, Ltd., loan— Warrant		12,500 00	12,500 00	
April 5th, 1934	Canadian Lakehead Exhibition, grant for special expenses— Warrant		900 00	900 00	
April 10th, 1934	Ontario Growers Markets Council, grant— Warrant		5,000 00	5,000 00	
April 10th, 1934	Board of Home Missions of the United Church of Canada, grant— Warrant		7,000 00	7,000 00	
April 17th, 1934	Canadian Women's Hostel, grant— Warrant		1,500 00	1,500 00	
April 17th, 1934	Dairymen's Association, Western Ontario, grant— Warrant		500 00	500 00	
April 10th, 1934	Compassionate allowance to Mrs. John Rae, widow of the late John Rae of the Ontario Agricultural College, Guelph— Warrant		300 00	300 00	
April 24th, 1934	Hearst Creamery, compassionate allowance to assist in paying the salary of the Buttermaker— Warrant		580 00	580 00	
April 10th, 1934	Gratuity to Mrs. John H. Echlin, widow of John H. Echlin— Warrant		500 00	500 00	
November 14th, 1933	World's Grain Exhibition and Conference, balance of accounts for services, expenses, etc.— Warrant		950 00	946 66	3 34

SPECIAL WARRANTS—Continued

Date of Warrant	SERVICE		Warrants	Expended 1933-34	Unexpended
	Agriculture Department—Continued				
	Trenton Cold Storage Ltd., payment of one year's rent from October 1st, 1933—				
November 22nd, 1933	Warrant		5,000 00	5,000 00	
	Ontario Research Foundation, in connection with research work re Bovine Infectious Abortion—				
November 22nd. 1933	Warrant	9,874 08			
November 9th, 1934	"	9,639 34	19,513 42	19,513 42	
	Agricultural Societies in the Province of Ontario, special grant—				
November 3rd, 1933	Warrant		3,157 00	3,157 00	
	Miscellaneous				
	Canadian Military Institute, grant—				
December 28th, 1933	Warrant		600 00	600 00	
	Veterans' Re-union Council, to assist in defraying expenses of Warriors Day at the Canadian National Exhibition, grant—				
August 23rd, 1934	Warrant		500 00	500 00	
	Total Special Warrants		$3,085,159 05	$2,113,191 58	$971,967 47

REPORT FOR 1934

OF

The Workmen's Compensation Board

ONTARIO

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 28, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

To His Honour Herbert Alexander Bruce,
Lieutenant-Governor of the Province of Ontario:

May It Please Your Honour:

The undersigned has the honour to present to Your Honour the Report of The Workmen's Compensation Board for the year ending the 31st of December, 1934.

Respectfully submitted,

A. W. Roebuck,
Attorney General and Minister of Labour.

THE WORKMEN'S COMPENSATION BOARD

GEO. WILKIE, K.C., Chairman
E. HUTCHINSON, Vice-Chairman
GEO. A. KINGSTON, Commissioner
N. B. WORMITH, Secretary

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REPORT FOR 1934

OF

THE WORKMEN'S COMPENSATION BOARD

ONTARIO

To His Honour the Lieutenant-Governor:

The Workmen's Compensation Board begs to submit its Report for the year 1934.

GENERAL REVIEW

The Ontario Workmen's Compensation Act includes the greater number of industries in the Province, but not all of them. The included industries are divided into two schedules—1 and 2. A list of the industries included in Schedule 1 appears at the foot of Table 1 of this report.

Schedule 2 includes railways, street railways, express, telegraph and telephone companies, navigation, municipalities, commissions, and school boards. The industries in this schedule are dealt with under the individual liability system, the employer being liable to pay for accidents happening to his own workmen.

Much the greater number of industries are included in Schedule 1. This schedule includes manufacturing of all kinds and the operation of theatres and moving picture places, gas works, light and waterworks systems, construction and repair of roads, streets, etc., fishing, dredging, stevedoring, and many other similar industries. The industries in this schedule are dealt with under the collective liability system, that is, the industry as a whole bears the losses of the industry which are distributed over classes, groups, and individual items, for each of which items, numbering in all 426, there is a rate set from year to year. The rate is then applied to all the pay rolls in the particular item for which the rate is fixed and the individual employer is assessed for an amount resulting from the application of the rate to his annual pay roll. Out of the fund thus created there are paid:

(1) Compensation to injured or diseased workmen and to the dependants of deceased workmen;

(2) Such medical aid, including surgical, dental, hospital, and nursing services as have been made necessary by the result of the accident or disease;

(3) Accident prevention, which is taken care of by accident prevention associations subsidized by the Board;

(4) Rehabilitation—that is the getting of injured workmen back to work and lessening or removing the handicap resulting from their injuries. A considerable portion of this is expended in the maintenance of a clinic operated by the Board to restore the injured workmen to operative strength and capacity;

(5) Administration Expenses.

The amounts awarded or paid in 1934 are:

(1) Compensation	$3,657,968.82
(2) Medical Aid	841,738.41
(3) Accident Prevention	146,065.93
(4) Rehabilitation	10,627.56
(5) Administration Expenses	322,458.99

Funds

A considerable part of the compensation awarded by the Board takes the form of pensions to the injured workmen and to the widows and children of deceased workmen. To meet these pensions the Board collects from time to time the capitalized value of such pensions, which capitalized value is invested and the proceeds of the investments used to pay the pensions. These are present liabilities of the fund, but provision has also to be made for contingent liabilities arising out of pensions which may be awarded to widows and dependants of workmen suffering from industrial diseases and who may die from those diseases. This fund has assumed large proportions and the investment of it and the ascertainment as to whether the amount invested is sufficient to meet the burden of the pensions awarded and to be awarded and the medical aid which may be necessary in the future is a matter which has received the Board's attention. The Board has instructed Messrs. S. H. Pipe & Company, Actuaries, to make a complete actuarial revaluation and financial survey of the funds of the Board, making the necessary computations to ascertain whether or not sufficient provision had been made to cover the various liabilities. The actuaries are now engaged in making this report but it is not complete and will not be ready in time to be included in this year's annual report.

Rates of Assessment

The average general rate levied on the full pay roll in Schedule 1 since the commencement of the Act has been $1.16 per $100 of pay roll. In some years the assessment has been higher, and in some years substantially lower. The provisional rate for the year 1934 is $1.16.

Accidents

The accidents reported to the Board during the year were 54,730; those for 1933 were 38,042.

The provisional pay rolls reported to the Board amounted to $335,257,000, as against $286,273,000 for 1933.

Changes

The protection afforded to workmen under the Act has been considerably extended by a more liberal construction which has been placed upon the provisions of the Act respecting industrial diseases.

Contents of Report

The report gives a summary of the operations of the Board for the year 1934 as assembled from the Board's records, and the appendix gives a summary of the operations from the commencement of the Act until the end of 1934.

Dated at Toronto this 25th day of March, 1935.

CHAPTER I

SCHEDULE 1 INDUSTRIES FOR 1934

As some of the industries covered by the Act are under the collective liability system (the employer not being individually liable for accidents to his workmen but being assessed to provide a general fund out of which accidents occurring in his class of industry throughout the Province are taken care of) and others are under the individual liability system (the employer being liable to pay for accidents happening to his own workmen), separate financial statements have to be made for each. The industries under the collective liability system are included in Schedule 1, and those under individual liability in Schedule 2, the former comprising much the greater number.

This chapter deals with Schedule 1 industries for 1934. Schedule 2 industries are dealt with in Chapter II, while Chapter III deals with the work handled in both schedules and the administration of the Act generally during the year, Chapter IV with the different funds in both schedules and their standing at the end of 1934, and Chapter V gives financial and statistical information for 1933 which was not available when the report for that year was made.

Provisional Financial Statement

The provisional financial statement for the industries in Schedule 1 for 1934 is contained in Table 1. To show the standing for the year, estimates have to be made of adjustments of assessments according to actual pay rolls and on the retroactive rates (the assessments for the year being first levied on an estimate of pay roll and at a provisional rate), and estimates also have to be made of compensation and medical aid still to be awarded for accidents happening during the year which have not yet been finally disposed of by reason of the injured workman being still under medical treatment or reports not being received. These estimates contain also all liabilities for claims of previous years yet outstanding and provision for claims of prior years which may subsequently be adjusted. Final figures for the year 1934 will be shown in the next subsequent report in the same manner as the final figures for 1933 are shown in Table 15 of this report.

The difference is to be noted between the amount of compensation and medical aid awarded for the year's accidents and the amount awarded during the year. The latter is partly for the prior year's accidents, while upon the other hand it does not cover all the liability for the current year's accidents. The more correct system of charging each year as far as possible with its own accidents, and for that purpose keeping the year's accounts open till the end of the subsequent year, has been adopted, rather than the looser method of taking the amount awarded during the year as the cost of the year's accidents and leaving always an outstanding liability unprovided for. For the purpose of information and comparison, however, the amounts awarded during the year are shown in Chapter III.

Accounts for Each Class

The industries in Schedule 1 are divided into classes, and as each class (subject to any transfer that may be made to it from the Disaster Reserve in any case of undue burden) bears its own accident cost—the employers in the class being in effect a mutual insurance association—separate accounts have to be kept for the different classes. Each class is credited with its own assessments, its share of interest and other income, and with any transfer made to it from Disaster Reserve, or credit from any other source, and is charged with the cost of its own accidents, its share of administration expenses, the cost of its safety association if it has one, and with its share of any amount set aside for Disaster Reserve.

The figures for each class, and the provisional surplus or deficit for the year, and the balance forward from prior years, and the provisional surplus or deficit for all years, are shown in Table 1. The final figures for each class and also the figures for the different groups within the classes (as in Table 15) will be shown in the next report. The assessments are fixed according to the accident cost and other expenses and charges in each class and group and having regard to the other income and credits.

The classes are numbered and the nature of the industries in each is shown at the bottom of Table 1 and full enumeration of the industries will be found in Schedule 1 of the Act and in the Board's rate book, the latter also showing the grouping within the class.

Assessments and Other Credits

The total assessments in all the classes of Schedule 1 for the year 1934, including estimated adjustments, amounted to $3,888,156.35. In assessments are included collections for default in making returns or payments and interest for under and over estimate of pay roll. The other income and credits for the year consisted of interest received other than credited to the Pension Fund, Silicosis Account, Disaster Reserve, and Compensation Deferred, as shown in Chapter IV; reimbursement for veteran cases, received from the Department of Pensions and National Health; cost of accidents collected under Section 105 for failure to furnish pay roll prior to accident; recovery from third parties under Section 8; collections under Section 112(3) from employers for failure to furnish particulars of accidents; transfers from the Disaster Reserve; and refunds of accident cost. Other income and credits amounted to $139,151.98, making a total of $4,027,308.33, of which $32,896.17 is to be refunded for merit rating. The net income and credits for the year are, therefore, $3,994,412.16.

Compensation and Other Charges

The compensation for Schedule 1 industries for the year, including estimate for what is still to be awarded for accidents happening during the year and for adjustments of prior years' accidents, amounted to $3,462,546.09; the medical aid, including estimate for what is outstanding, amounted to $969,226.13; the administration expenses for Schedule 1, including $11,403.09 for mine rescue work, amounted to $250,115.11; and $146,065.93 was paid to employers' safety associations. The total expenditures and charges for the year were $4,827,953.26.

The provisional deficit for the year was $833,541.10. The balance forward from prior years was $1,589,872.87, which, added to the deficit for the year, makes a net provisional surplus of $756,331.77 at December 31, 1934.

Number of Employers

Total number of employers listed in Schedule 1 at the end of 1934 was 19,942, as compared with 19,600 at the end of 1933. The number in each class and group of industry is shown in Table 2.

Wage Expenditure

The estimated total wage expenditure in Schedule 1 industries for the year 1934, calculated on provisional figures, is $335,257,000, as compared with $286,273,000 in 1933. The amounts for the different classes of industry are shown in Table 3.

The Board has no similar data for Schedule 2 and Crown industries as in these the employers pay for the accidents to their own workmen and are not required to make pay roll returns or pay assessments upon them as in Schedule 1. The pay roll would probably be about one-third that of Schedule 1.

Average Rates of Assessment

Assessments in Schedule 1 are in the form of a percentage of pay roll, and the average rate or percentage over all the classes actually paid by the employers can be ascertained by relating the total assessments to the total wage expenditure. This, on the provisional figures, gives an average rate of assessment for 1934 of $1.16 on every $100 of pay roll. The average over all years since the commencement of the Act was $1.16.

Class	Colle Prov Asses
1	19
2	17
3	4
4	6
5	47
6	8
7	3
8	6
9	8
10	17
11	11
12	11
13	5
14	3
15	20
16	6
17	7
18	6
19	5
20	15
21	19
22	5
23	5
24	27
ALL	2,92

reim

1. Lu
2. Pu
3. Fu
4. Pl
5. M
6. Br

TABLE 1

PROVISIONAL FINANCIAL STATEMENT FOR SCHEDULE 1, BY CLASSES, AS AT DECEMBER 31, 1934

Class	INCOME AND CREDITS (Actual and Estimated)					EXPENDITURE AND CHARGES (Actual and Estimated)												Class
	Collected on Provisional Assessments	Estimated Adjustments of Assessments	Interest Secs. 8, 105, 112 (3), Etc.	Assessment Refunds on Account of Merit Rating	TOTAL FOR YEAR	Compensation Paid, other than Pensions	Transferred for Pensions Awarded	Compensation Awarded, Payment Deferred	Compensation Estimated Outstanding	Medical Aid Paid	Medical Aid Estimated Outstanding	Administration Expenses and Mine Rescue Work	Paid to Safety Associations	TOTAL FOR YEAR	SURPLUS OR DEFICIT FOR YEAR (Provisional)	Balance Forward Prior Years	SURPLUS OR DEFICIT ALL YEARS (Provisional)	
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
1	195,405 16	188,100 00	1,143 75	3,077 50	381,571 41	115,077 41	36,308 66	1,669 00	112,126 76	59,933 35	46,139 38	21,350 04	19,955 00	412,559 60	—30,988 19	—216,025 85	—247,014 04	1
2	171,366 31	14,800 00	7,922 51	3,849 49	190,239 33	54,375 17	37,047 75	950 00	48,768 76	29,262 05	10,656 00	13,305 73	13,645 08	208,010 54	—17,771 21	129,835 31	112,064 10	2
3	40,179 43	17,100 00	106 17	59 94	57,325 66	14,139 37	13,917 00	....	12,677 87	6,915 86	4,640 99	3,190 37	2,894 27	58,375 73	—1,050 07	—21,481 18	—22,531 25	3
4	62,222 77	39,400 00	171 42	94 50	101,699 69	30,609 25	21,297 06	....	43,542 27	13,457 08	13,181 64	5,712 51	5,182 34	132,982 15	—31,282 46	3,371 37	—27,911 09	4
5	478,895 71	219,200 00	34,807 58	6,833 42	726,069 87	159,923 08	122,628 98	575 00	300,694 64	66,884 43	80,474 74	**49,681 04	11,200 00	792,061 91	—65,992 04	595,955 66	529,963 62	5
6	84,331 76	30,000 00	8,920 98	1,653 90	121,598 84	15,606 62	4,277 00	....	126,576 32	8,323 09	10,835 26	6,220 21	5,642 92	177,481 42	—55,882 58	127,284 32	71,401 74	6
7	36,929 98	4,100 00	6,730 74	63 00	47,697 72	9,853 37	4,883 00	....	29,519 90	5,618 05	5,446 02	2,670 40	2,422 57	60,413 31	—12,715 59	118,893 01	106,177 42	7
8	69,217 88	41,800 00	2,937 73	770 16	113,185 45	21,379 15	10,319 20	....	69,219 52	14,770 29	11,671 18	5,284 55	4,794 10	137,437 99	—24,252 54	44,070 72	19,818 18	8
9	80,109 58	25,000 00	10,743 45	3,284 92	112,568 11	24,347 43	22,580 00	300 00	53,402 36	14,160 98	14,597 79	6,461 29	5,861 63	141,711 48	—29,143 37	199,785 98	170,642 61	9
10	171,955 46	59,700 00	9,232 39	1,404 24	239,483 61	66,431 09	11,247 35	1,080 00	117,336 86	37,015 89	14,152 32	14,009 73	12,709 50	273,982 74	—34,499 13	109,077 62	74,578 49	10
11	111,660 72	56,700 00	1,721 76	3,273 08	166,809 40	52,881 77	20,948 78	....	38,855 53	37,994 87	9,849 04	8,820 98	8,002 32	177,353 29	—10,543 89	35,280 16	24,736 27	11
12	119,048 36	41,000 00	4,299 70	917 64	163,430 42	32,474 33	19,970 00	....	66.615 82	22,957 86	8,822 79	8,927 18	8,098 65	167,866 63	—4,436 21	44,192 93	39,756 72	12
13	57,431 91	2,800 00	2,678 17	565 44	62,344 64	13,419 66	6,947 00	....	16,918 89	6,307 38	3,997 56	3,628 32	....	51,218 81	11,125 83	18,083 98	29,209 81	13
14	38,191 79	22,500 00	2 00	1,926 14	58,767 65	11,846 79	5,961 57	....	29,381 08	8,358 23	3,439 13	3,228 06	2,928 47	65,143 33	—6,375 68	—14,180 13	—20,555 81	14
15	207,538 35	68,100 00	1,168 51	1,013 10	275,793 76	67,905 00	36,952 00	540 00	95,590 39	42,102 55	22,694 38	16,714 37	15,163 12	297,661 81	—21,868 05	—71,478 16	—93,346 21	15
16	66,769 84	28,600 00	3,451 21	781 20	98,039 85	23,461 45	18,132 00	1,260 00	24,554 76	13,821 19	4,056 93	5,104 42	4,630 69	95,021 44	3,018 41	64,764 09	67,782 50	16
17	72,887 49	—6,300 00	4,615 62	311 10	70,892 01	21,231 47	4,124 00	....	22,210 52	13,514 41	3,073 71	5,378 34	4,879 18	74,411 63	—3,519 62	63,934 11	60,414 49	17
18	69,560 69	14,700 00	1,997 36	664 56	85,593 49	22,195 34	4,929 00	350 00	30,403 34	17,239 74	5,040 33	5,345 30	4,849 20	90,352 25	—4,758 76	20,235 80	15,477 04	18
19	52,129 99	11,900 00	1,588 95	97 26	65,521 68	19,995 44	12,210 71	200 00	22,918 29	11,566 85	6,010 76	4,250 15	3,855 70	81,007 90	—15,486 22	16,372 95	886 73	19
20	156,749 45	52,400 00	7,577 45	689 40	216,037 50	63,370 46	27,367 38	640 00	76,882 61	37,813 72	13,874 91	14,514 85	....	234,463 93	—18,426 43	10,569 53	—7,856 90	20
21	192,999 34	47,200 00	5,747 59	832 86	245,114 07	81,121 72	45,741 00	180 00	98,642 85	39,125 48	17,295 92	14,015 75	....	296,122 72	—51,008 65	92,751 40	41,742 75	21
22	54,889 92	—6,900 00	3,852 41	328 08	51,514 25	7,862 02	6,545 00	....	23,201 22	5,216 25	4,185 81	1,899 10	8,525 00	57,434 40	—5,920 15	49,718 17	43,798 02	22
23	59,797 38	33,600 00	11,596 71	405 24	104,588 85	21,032 39	52,976 00	....	66,751 44	9,094 71	26,095 25	6,936 35	826 19	183,712 33	—79,123 48	253,886 98	174,763 50	23
24	277,187 08	—44,800 00	6,137 82	....	238,524 90	76,807 99	55,834 25	100 00	297,417 63	44,675 54	62,864 44	23,466 07	....	561,165 92	—322,641 02	—85,025 90	—407,666 92	24
ALL	2,927,456 35	*960,700 00	†139,151 98	32,896 17	3,994,412 16	‡1,027,347 77	603,144 69	7,844 00	1,824,209 63	566,129 85	403,096 28	250,115 11	146,065 93	4,827,953 26	—833,541 10	1,589,872 87	756,331 77	ALL

*Adjusted on actual pay rolls and retroactive rates.

†Includes Interest, $118,601.64; Sec. 8, $10,192.72; Sec. 105, $2,988.96; Sec. 112 (3), $182.50; reimbursement from D.P. & N.H., $6,470.16; from Accident Cost Refunds, $716.00.

‡Includes Rehabilitation, $373.18.

**Includes Mine Rescue Work, $11,403.09.

Class Numbers of Industries

1. Lumbering.
2. Pulp and paper mills.
3. Furniture manufacturing, etc.
4. Planing mills, etc.
5. Mining and explosives.
6. Brick manufacturing, quarrying, and glass works.
7. Rolling mills, etc.
8. Foundries, etc.
9. Fabrication structural steel, etc.
10. Metal articles, jewellery manufacturing, etc.
11. Agricultural implements, etc.
12. Gas, petroleum, paint, drugs, soap, etc.
13. Milling.
14. Abattoirs, etc.
15. Bakeries, canning, liquors, and tobacco.
16. Tanneries, leather and rubber goods.
17. Textiles.
18. Clothing, power laundries, etc.
19. Printing and stationery.
20. Teaming, cartage, coal and wood yards, etc.
21. Road construction, etc.
22. Electric power, etc.
23. Steel construction, railway and canal construction, dredging, fishing, etc.
24. Building.

TABLE 2

NUMBER OF FIRMS IN SCHEDULE 1, BY CLASSES AND GROUPS, DECEMBER 31, 1934

Class	Group 0	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	TOTALS
1	54	56	731	......	......	......	......	......	......	......	841
2	34	43	17	......	......	......	......	......	......	......	94
3	119	33	17	102	......	......	......	......	......	......	271
4	341	49	72	24	120	......	......	......	......	......	606
5	22	296	4	125	......	11	17	12	......	......	487
6	73	97	8	145	47	104	109	......	......	......	583
7	4	9	......	......	......	......	......	......	......	......	13
8	96	8	42	35	......	......	......	......	......	......	181
9	16	10	1	12	163	17	......	......	......	......	219
10	318	297	33	57	53	25	170	113	......	......	1,066
11	39	753	49	2	......	......	......	......	......	......	843
12	64	269	124	19	243	......	......	......	......	......	719
13	534	112	......	......	......	......	......	......	......	......	646
14	133	......	......	......	......	......	......	......	......	......	133
15	364	265	76	266	72	255	40	......	......	......	1,338
16	54	94	70	23	43	......	......	......	......	......	284
17	134	144	44	......	......	......	......	......	......	......	322
18	698	174	......	......	......	......	......	......	......	......	872
19	301	560	56	61	......	......	......	......	......	......	978
20	1,562	1,036	......	......	......	......	......	......	......	......	2,598
21	393	203	......	......	......	......	......	......	......	......	596
22	458	......	......	......	......	......	......	......	......	......	458
23	65	40	289	......	......	......	......	......	......	......	394
24	547	247	712	305	964	722	278	126	1,214	285	5,400
All											19,942

TABLE 3

ESTIMATE OF WAGE EXPENDITURE, SCHEDULE 1 BY CLASSES, FOR 1934

Class	Wage Expenditure
1	$6,610,000
2	12,812,000
3	5,604,000
4	6,046,000
5	30,696,000
6	4,878,000
7	6,231,000
8	7,107,000
9	10,258,000
10	31,273,000
11	25,081,000
12	24,262,000
13	4,553,000
14	5,700,000
15	34,955,000
16	17,321,000
17	23,312,000
18	23,329,000
19	23,786,000
20	7,240,000
21	7,586,000
22	4,024,000
23	2,259,000
24	10,334,000
TOTAL	$335,257,000

CHAPTER II

SCHEDULE 2 INDUSTRIES DURING 1934

Table 4 is a statement of the compensation awarded and the moneys handled during 1934 in Schedule 2 industries (in which the employer is individually liable for accidents to his workmen). Dominion Crown Cases under the Act by Dominion legislation, and Provincial Crown Cases referred to the Board for adjustment, are included.

The total amount of compensation awarded in Schedule 2 industries and Crown Cases during 1934 was $912,729.66. Of this amount $254,361.23 was for workmen of municipal corporations; $152,805.71 for steam railroads; $3,370.46 for electric railways; $49,766.11 for navigation companies; $1,926.04 for express and sleeping car companies; $7,752.25 for telephone and telegraph companies, and $208.63 for all other industries in Schedule 2; $244,150.14 for Dominion Crown Cases and $198,389.09 for Provincial Crown Cases. Of the total amount awarded, $457,868.69 was for pensions in pension cases, and $454,860.97 for cases not pension cases and for compensation not pensions in pension cases.

In pension cases, except in the case of municipal or government bodies or departments thereof, not so desiring, deposits must be made by employers in Schedule 2 industries. Particulars of these are given under "Deposits under Section 28". Under "Claimants' Moneys" are included moneys held by the Board under awards in which in the interest of the claimant, or for some other reason, payment of the amounts held is deferred to a later date, as in the case of minors. "Deposits under Section 32" are amounts deposited with the Board to enable the Board to make prompt payments without waiting for receipt of cheque from employer.

Employers in Schedule 2 are assessed their share of the expense of administration as set out in Table 8. For 1934 that share amounted to $23,074.66, as compared with $25,784.96 in 1933, and $24,189.86 in 1932. Proportionate to the amount of compensation awarded, administration expenses in Schedule 2 and Crown Cases were 8.88 per cent. in 1934, as compared with 8.71 per cent. in 1933, and 5.85 per cent. in 1932.

Further information as to Schedule 2 funds and particulars of Schedule 2 investments are given in Chapter IV, and in Tables 9 and 14, and in the Appendix.

TABLE 4

STATEMENT FOR SCHEDULE 2 DURING 1934

SCHEDULE 2 AWARDS

	Awards not Pensions	Pensions	TOTALS
Municipal Corporations, etc.	$95,560 23	$158,801 00	$254,361 23
Steam Railroads	65,153 34	87,652 37	152,805 71
Electric Railways	3,370 46	....	3,370 46
Navigation Companies	21,161 79	28,604 32	49,766 11
Express and Sleeping Car Companies	1,926 04	....	1,926 04
Telephone and Telegraph Companies	5,112 25	2,640 00	7,752 25
All Others	208 63	....	208 63
Dominion Crown Cases	131,397 14	112,753 00	244,150 14
Provincial Crown Cases	130,971 09	67,418 00	198,389 09
TOTALS	$454,860 97	$457,868 69	$912,729 66

SCHEDULE 2 FUNDS

Deposits under Section 28

Cash in bank and invested, January 1, 1934	$3,381,042 39	
Deposits received from employers	119,481 24	
Interest received	186,931 90	
Paid to pensioners		$330,819 62
Deposits returned to employers		1,565 12
Cash in bank and invested, December 31, 1934		3,355,070 79
	$3,687,455 53	$3,687,455 53

Claimants' Moneys

Cash in bank and invested, January 1, 1934	$23,850 48	
Deposits received from employers	705 00	
Interest received	1,151 69	
Paid to claimants		$3,840 45
Cash in bank and invested, December 31, 1934		21,866 72
	$25,707 17	$25,707 17

Deposits under Section 32

Cash in bank and invested, January 1, 1934	$44,563 17	
Deposits received from employers	916,658 61	
Payments made—Compensation and Medical Aid		$915,038 48
Deposits returned to employers		4,794 37
Cash in bank, December 31, 1934		41,388 93
	$961,221 78	$961,221 78

TOTALS OF FUNDS

Cash in bank and invested, January 1, 1934	$3,449,456 04	
Deposits received from employers	1,036,844 85	
Interest received	188,083 59	
Payments made		$1,249,698 55
Deposits returned to employers		6,359 49
Cash in bank and invested, December 31, 1934		3,418,326 44
	$4,674,384 48	$4,674,384 48

CHAPTER III

WORK HANDLED DURING 1934

This chapter deals with the work handled during 1934 and with the administration of the Act generally during the year. Particulars are given in Tables 5 to 8.

The figures are for what has been dealt with during 1934 without regard to the year in which the accidents dealt with occurred, while as explained in Chapter I the figures in Chapter I and Chapter V are for the accidents happening during the year.

Benefits Awarded During the Year

The total amount of compensation awarded during 1934 was $3,657,968.82, of which $2,745,239.16 was in Schedule 1 industries, $470,190.43 in Schedule 2 industries, and $442,539.23 in Crown cases. There was also paid for medical aid in Schedule 1 during the year $841,738.41, making the total benefits awarded during the year $4,499,707,23. In Schedule 2 and Crown cases medical aid is provided directly by the employer and no figures are available.

The benefits awarded during each year and the total since the commencement of the Act are as follows:

	Schedule 1		Schedule 2 and Crown	Total
Year	Compensation	Medical Aid	Compensation	Benefits
1934	$2,745,239 16	$841,738 41	$912,729 66	$4,499,707 23
1933	2,298,787 97	667,581 69	732,699 29	3,699,068 95
1932	3,202,639 27	817,240 38	1,105,740 91	5,125,620 56
1931	3,917,045 43	1,060,763 01	1,043,583 66	6,021,392 10
1930	4,942,756 25	1,336,046 05	1,144,216 52	7,423,018 82
1929	5,346,621 19	1,385,524 62	1,280,011 97	8,012,157 78
1928	4,565,688 56	1,166,507 54	1,335,750 83	7,067,946 93
1927	3,930,417 59	1,062,859 64	1,091,377 64	6,084,654 87
1926	3,664,039 94	988,486 70	1,168,825 26	5,821,351 90
1925	3,635,530 27	875,836 01	1,054,077 11	5,565,443 39
1924	4,052,287 77	835,956 60	1,234,575 97	6,122,820 34
1923	4,036,170 26	788,905 90	1,348,785 58	6,173,861 74
1922	3,417,101 61	692,819 94	1,582,975 06	5,692,896 61
1921	3,858,017 50	662,793 89	1,668,452 10	6,189,263 49
1920	5,113,149 77	703,705 66	1,963,389 82	7,780,245 25
1919	2,808,638 65	386,298 51	997,922 77	4,192,859 93
1918	2,751,137 45	369,346 37	763,511 02	3,883,994 84
1917	2,286,954 99	*83,514 07	623,556 37	2,994,025 43
1916	1,553,653 38	†.........	451,709 93	2,005,363 31
1915	692,389 09	†.........	200,932 03	893,321 12
Totals	$68,818,266 10	$14,725,924 99	$21,704,823 50	$105,249,014 59

*Half year only. †No provision for medical aid.

The increase in benefits from the early years is largely by reason of increase in wages, compensation being for the most part a percentage of wages, and additional industries have been covered, and some material changes were made in compensation. The large total for 1920 is by reason of the retroactive increase in widows' and children's pensions, and the small amount awarded during 1915 is by reason of many 1915 accidents not being, nor capable of being, finally disposed of till the following year. The amount of benefits awarded for each year's accidents, as distinguished from the amount awarded during the year, is shown in Chapter V.

Accidents Reported During the Year

During 1934, 54,730 accidents were reported. These included some not serious enough to involve payment of either compensation or medical aid and for which no claim was made, and others for which claims were made but which were not allowed by the Board.

At the close of the year there were 1,374 claims in assembly, as compared with 1,032 at the end of 1933, notice of the accident having been given but reports necessary to deal with the case not yet having been received.

The number of accidents reported each year and the total number since the commencement of the Act are as follows:

Year	Schedule 1	Schedule 2	Crown	Totals
1934	44,858	2,244	7,628	54,730
1933	33,227	1,890	2,925	38,042
1932	35,264	2,474	3,732	41,470
1931	46,069	3,348	3,477	52,894
1930	61,490	4,486	3,291	69,267
1929	76,029	6,008	5,066	87,103
1928	69,011	5,815	4,572	79,398
1927	62,063	5,412	4,504	71,979
1926	57,032	4,942	3,942	65,916
1925	50,883	5,079	4,050	60,012
1924	49,558	4,916	4,201	58,675
1923	51,655	6,080	3,374	61,109
1922	42,139	7,124	1,148	50,411
1921	36,272	7,666	1,253	45,191
1920	46,177	7,222	1,452	54,851
1919	36,236	7,918	106	44,260
1918	40,662	7,113	73	47,848
1917	30,701	5,813	18	36,532
1916	21,269	4,806	17	26,092
1915	13,878	3,144	11	17,033
All Years	904,473	103,500	54,840	1,062,813

Accidents Paid For During the Year

Table 5 shows the number of accidents in which compensation or medical aid was paid during the year. The total number was 49,302, as compared with 33,706 during 1933. The 49,302 comprised 190 deaths, 14 permanent total disability cases, 1,705 permanent partial disability cases, 23,238 temporary disability cases, and 24,155 medical aid only cases. Except for Department of Northern Development (Ontario) cases, Schedule 2 and Crown cases, involving medical aid only, which are a large proportion of the accidents reported, are not included as accidents paid for, as the medical aid is furnished directly by the employer.

The number of accidents in which compensation or medical aid was awarded each year since the commencement of the Act is as follows:

Year	Schedule 1	Schedule 2	Crown	Totals
1934	41,244	1,800	6,258	49,302
1933	29,766	1,487	2,453	33,706
1932	38,469	1,914	3,521	43,904
1931	43,611	2,561	2,710	48,882
1930	56,715	2,723	2,357	61,795
1929	68,195	2,883	2,737	73,815
1928	61,384	2,723	2,425	66,532
1927	55,894	2,741	2,443	61,078
1926	52,199	2,489	2,182	56,870
1925	47,782	2,734	2,217	52,733
1924	46,616	2,820	2,475	51,911
1923	47,873	3,849	1,916	53,638
1922	37,172	4,572	765	42,509
1921	34,271	5,161	834	40,266
1920	42,693	4,444	714	47,851
1919	34,400	4,517	153	39,070
1918	36,565	4,335	30	40,930
*1917	25,277	3,406	19	28,702
*1916	15,370	2,825	3	18,208
*1915	8,328	1,494	7	9,829

*Cases involving medical aid only not covered till July 1, 1917.

Awards Changed

In addition to claims compensated, as shown in Table 5, the Board in 1934 opened for further award 506 claims which had been settled previously.

Cheques, Assessments, Mail and Callers

In all, 233,782 cheques were issued during 1934, an average of about 779 daily, and there were 24,865 assessments made, including refunds. About 5,100 pieces of mail were handled daily, and the average number of office callers was 52 a day.

Receipts and Payments

The receipts and payments during the year are shown in Table 6, the statement for Schedule 2 including Crown cases. Explanation of the items and the funds referred to will be found in other parts of the report. A summary of receipts and payments since the commencement of the Act is given in the Appendix.

Payments to Safety Associations

The safety or accident prevention associations are organizations of employers established under the authority of the Act by the employers in twenty-one out of the twenty-four classes of industry. They are under the management of the employers, but the expenses are paid by the Board out of the accident fund.

The total amounts so paid are set out in Table 7, which table also shows the amount paid out on account of mine rescue work in Class 5.

Administration Expenses

The administration expenses of the Board, analyzed under the different headings, are shown in Table 8. The gross administration expenses during 1934 were $333,895.74, which included special statistical services for which refunds have been received of $11,436.75, making the total administration expenses $322,458.99, as compared with $300,292.50 during 1933. The employers pay the whole expense of the administration of the Act. The amount is divided according to the accidents handled among Schedule 1 (Accident and Silicosis Funds), Schedule 2, and Dominion and Provincial Crown.

The amount charged to the Silicosis Fund was $2,147.10; to Mine Rescue Work, $543.00; and to Schedule 1 employers, $238,712.02; to Schedule 2, $23,074.66; to Dominion Crown $16,346.72; and to Provincial Crown, $41,635.49.

The cost of office furniture, fixtures, and equipment, including permanent equipment, has always been charged to administration expenses in the year in which payment therefor was made, and no entry for which has ever been made in the standing of the funds. The value of this furniture and equipment at the present time is estimated at about $25,000.

The total administration expenses for 1934, less expenses of supervising work in connection with silicosis and mine rescue stations (not properly administrative work) and handling claims for silicosis, were 7.11 per cent. of all benefits awarded, being 6.65 per cent. of benefits awarded in Schedule 1 and 8.88 per cent. in Schedule 2 and Crown cases.

TABLE 5

COMPENSATION, MEDICAL AID, AND ACCIDENTS PAID FOR DURING 1934

Compensation Awarded during 1934

Schedule 1	$2,745,239 16
Schedule 2	470,190 43
Crown Cases	442,539 23
Total	$3,657,968 82

Medical Aid Paid during 1934

Schedule 1	$841,738 41
Schedule 2	furnished by employer
Crown Cases	furnished by employer

Accidents Paid For during 1934

	Medical Aid only	Temp. Dis.	Perm. Partial Dis.	Perm. Total Dis.	Deaths	Totals
SCHEDULE 1—						
Full Compensation	......	15,082	1,423	9	102	16,616
Part Compensation	......	1,988	......	....	19	2,007
Medical Aid only	22,621	......	......	....	....	22,621
Totals	22,621	17,070	1,423	9	121	41,244
SCHEDULE 2—						
Full Compensation	......	1,478	96	5	33	1,612
Part Compensation	......	182	......	....	1	183
Medical Aid only	5	......	......	....	....	5
Totals	5	1,660	96	5	34	1,800
CROWN CASES—						
Full Compensation	......	4,109	186	....	34	4,329
Part Compensation	......	399	......	....	1	400
Medical Aid only	1,529	......	......	....	....	1,529
Totals	1,529	4,508	186	....	35	6,258
GRAND TOTALS	24,155	23,238	1,705	14	190	49,302

TABLE 6

STATEMENT OF RECEIPTS AND PAYMENTS DURING 1934

Schedule 1

RECEIPTS

Cash in Banks, January 1, 1934:		
Canadian Bank of Commerce	$3,965 45	
Royal Bank of Canada	1,465 61	$5,431 06
Net Assessments, Penalties, etc.		
Gross Assessments.	$3,077,896 84	
Under Sec. 8.....	10,403 11	
Under Sec. 105...	2,988 96	
Under Sec. 112 (3)	182 50	
From D. P. and N. H.	6,470 16	
From Accident Cost Refunds..	716 00	
	$3,098,657 57	
Less		
Assessments and Penalties Refunded	$46,810 99	
Merit Rating Refunds	94,085 00	
	$140,895 99	2,957,761 58
Interest	$1,137,843 50	
Exchange	752 43	
Apportionment of Discounts on Debenture purchases applicable to 1934 (see *contra*).....	33,940 94	
	$1,172,536 87	
Less		
Interest charged on Bank Overdraft..	10,225 64	1,162,311 23
From Schedule 2 and Crown Employers for Administration Expenses, Account of prior years paid out of Schedule 1 in 1933		63,789 11
Principal returned from Investments	$409,434 05	
Decrease in value of Investments by amortization of premiums	21,124 21	430,558 26
Silicosis		519,392 48
Special Statistical Services.......		11,436 75
Rehabilitation Clinic:		
Refunds from Medical Aid...	$6,356 64	
From Schedule 2 Employers	397 00	6,753 64
Bank Overdraft, December 31, 1934, Dominion Bank.........		193,002 89
		$5,350,437 00

PAYMENTS

Bank Overdraft, January 1, 1934, Dominion Bank..............		$419,176 99
Compensation paid other than Pensions and Compensation Deferred		1,494,817 81
Pensions		1,941,719 47
Deferred Compensation.........		26,867 65
Rehabilitation		4,250 15
Medical Aid		819,606 64
Silicosis		107,747 19
Under Section 8................		210 39
Mine Rescue Work.............		10,860 09
Administration Expenses........		333,895 74
Safety Associations.............		146,065 93
Rehabilitation Clinic Expenses...		6,377 41
Investments	$283 72	
Increase in Book Value of Investments by Apportionment of Discounts on Debenture purchases applicable to 1934 (see *contra*)	33,940 94	34,224 66
Cash in Banks, December 31, 1934:		
Canadian Bank of Commerce	$2,870 74	
Royal Bank of Canada	1,746 14	4,616 88
		$5,350,437 00

Table 6—Continued

Schedule 2

RECEIPTS		
Cash in Imperial Bank, January 1, 1934		$33,438 08
From Employers, Deposits under Section 28		119,481 24
From Employers, Claimants' Moneys		705 00
From Employers, Deposits under Section 32		916,658 61
Interest	$179,759 92	
Exchange	631 21	
Apportionment of Discounts on Debenture purchases applicable to 1934 (See *Contra*)	7,785 94	
	$188,177 07	
Less:		
Interest Charged on Bank Overdraft	93 48	
		188,083 59
Decrease in value of Investments by amortization of premiums		917 27
Bank Overdraft, December 31, 1934, Imperial Bank		4,560 19
		$1,263,843 98

PAYMENTS		
To Claimants out of Deposits under Section 28		$330,819 62
Deposits returned to Employers under Section 28		1,565 12
To Claimants' out of Claimants' Moneys		3,840 45
Paid out of Deposits under Section 32:		
Compensation	$775,117 25	
Medical Aid	139,921 23	
		915,038 48
Deposits returned to Employers under Section 32		4,794 37
Increase in Book Value of Investments by Apportionment of Discounts on Debenture Purchases applicable to 1934 (See *Contra*)		7,785 94
		$1,263,843 98

TABLE 7

PAYMENTS TO SAFETY OR ACCIDENT PREVENTION ASSOCIATIONS, 1934

Association	Class	Total Payments
Lumbermen's Safety Association	1	$19,955 00
Ontario Pulp and Paper Makers' Safety Association	2	13,645 08
Class 5 Accident Prevention Association	5	11,200 00
Industrial Accident Prevention Associations	3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 23, 24.	92,740 85
Electrical Employers' Association of Ontario	22	8,525 00
TOTAL		$146,065 93

PAYMENTS FOR MINE RESCUE WORK (CLASS 5), 1934

Maintenance of Stations, Salaries and Supplies	$10,860 09	
Administrative Supervision	543 00	
		$11,403 09

REHABILITATION CLINIC ACCOUNT, 1934

Credit from 1933	$354 10		
Receipts during year	6,753 64		
		$7,107 74	
Payments during year		6,377 41	
Balance, December 31, 1934			730 33

TABLE 8

ANALYSIS OF ADMINISTRATION EXPENSES DURING 1934

Salaries of Board and Staff	$244,858 35	
Travelling Expenses of Board and Staff	12,780 43	
Printing, Stationery and Office Supplies	16,298 09	
Postage	23,038 21	
Telephone, Telegraph and Express	1,385 33	
Legal Expenses, Witness Fees, etc.	942 53	
Medical Examinations, X-ray Supplies, etc.	1,095 07	
Workmen's Travelling Expenses	337 65	
Insurance and Security Service	2,857 57	
Auditors' Services, under instructions of Attorney General	3,500 00	
Rent of Premises, Electric Current and Miscellaneous Services	25,330 42	
Permanent Equipment	1,472 09	
Gross Administration Expenses, 1934	$333,895 74	
Received for Special Statistical Services	11,436 75	
Total Administration Expenses		$322,458 99

Charged to Silicosis Fund	$2,147 10	
Charged to Mine Rescue Work	543 00	
Charged to Dominion of Canada	16,346 72	
Charged to Province of Ontario	41,635 49	
Charged to Schedule 2 Employers	23,074 66	
Charged to Schedule 1 Employers	238,712 02	
		$322,458 99

CHAPTER IV

CONDITION OF FUNDS

A general statement of the condition of the funds in Schedule 1 and in Schedule 2 is contained in Table 9, and particulars of the various funds and of the Board's investments are given in Tables 10 to 14. A summary since the commencement of the Act will be found in the Appendix.

Schedule 1 Funds

The Schedule 1 funds are known and referred to in the Act as the "Accident Fund". They comprise, in addition to current funds out of which temporary payments of compensation, medical aid, and administration expenses are paid, the Pension Fund, Disaster Reserve, and Compensation Deferred. The standing of the Accident Fund, showing assets and liabilities, at December 31, 1934, is shown in Table 9. The balance of assets in excess of liabilities at that date was $1,565,487.96, being $280,803.76 Disaster Reserve, $528,352.43 accrued interest and interest due and unpaid on investments, and $756,331.77 standing at the credit of the classes December 31, 1934. This is exclusive of office equipment and furniture mentioned in Chapter III.

Pension Fund

The Pension Fund, representing the outstanding pension liability, comprises the largest part of the funds standing to the credit of Schedule 1. The purpose of the Pension Fund is to take care of future payments of pensions which have already been awarded. Actuarial tables (published as an Appendix to the report for 1922), embodying the contingencies of death and remarriage, have been compiled to show for each age and kind of pension the average amount (sometimes referred to as capitalized value) necessary to complete pension payments. When a pension is awarded this average amount is transferred from current funds to the Pension Fund. All payments of pensions are made from the Pension Fund. Since the amount transferred in any one instance is the average amount required, no re-transfer is made should a residue be left at the expiry of the pension, nor is any additional transfer made should the amount be exhausted before expiry of the pension.

Re-Transfer from Pension Fund

During the years 1923 and 1924 an actuarial survey of the Board's pension experience and revaluation of the pension liability was made, all existing pensions being revalued. As a result the Pension Fund was found to be a little in excess of what the experience indicated to be necessary. As at date of January 1, 1924, a re-transfer of $600,000 was accordingly made from the Pension Fund to current funds, being distributed among the different classes of industry in proportion to the amount of Pension Fund to the credit of each class.

As of date October 31, 1925, actuarial revaluation of all outstanding pension fund obligations was made, the Board's actuarial tables being used. To the liability for each class thus ascertained was added a surcharge of two per cent. to allow for possible divergence of actual from expected mortality. Deduction was made of the surcharged liability in total for all the classes from the balance in the Pension Fund and the difference was re-transferred to the current funds, proportional to each class according to the balance in the Pension Fund. The sum transferred amounted to $427,214.62.

Further revaluation has been made as at date October 31 in each of the years, commencing 1926. On October 31, 1934, the Pension Fund showed a balance of $19,973,946.99, with liabilities of $20,053,506.58, an excess of liabilities over funds of $79,559.59.

Particulars of Pension Fund

Table 10 gives particulars of the Pension Fund for each class. The balance in the fund at the commencement of 1934 was $19,777,085.78; $1,190,313.71 was transferred during the year for pension awards; $982,195.00 interest (at the rate of five per cent. per annum, compounded half-yearly, which is the basis used in computing capitalized values of pensions) was added; and $1,941,719.47 was paid for pensions. The balance in the fund at the end of the year was $20,007,875.02.

The transfers for pension awards during the year included $59,668.59 transferred from Silicosis Account to provide for pensions in cases of silicosis in Class 5, and $2,536.00 from Disaster Reserve to meet the cost of pension to a workman previously disabled.

Disaster Reserve

The Disaster Reserve is a fund set aside under the provisions of Section 99 (2) of the Act to meet any unforeseen disaster or other circumstance which might unduly burden the employers in any class of industry. The fund has been accumulated by a transfer of one per cent. of the gross assessments up to the end of 1922, and for the year 1928. These are the only moneys set aside or held by the Board which do not directly cover liabilities actually incurred by reason of accidents which have already happened.

The standing of the Disaster Reserve is shown in Table 11. The balance at the end of 1934 was $280,803.76, $13,244.20 interest being added to the $270,095.56 in the fund at the beginning of the year, and $2,536.00 transferred to the Pension Fund.

Compensation Deferred

The funds included under "Compensation Deferred" comprise compensation moneys held at interest for claimants in Schedule 1, payment being deferred to a future time by reason of the claimant being a minor or for other reasons. The condition of the fund is shown in Table 12. At the beginning of the year the amount on hand was $54,751.57, deferred awards during the year amounted to $13,184.15 and $2,268.15 interest was added during the year; the payments during the year amounted to $26,867.65, of which $24,640.19, was for principal and $2,227.46 for interest, leaving a balance of $43,336.22 at the end of the year.

Silicosis Account

Table 13 gives particulars of the Silicosis Account which was established to take care of special assessments and payments in Class 5 necessitated by the addition of "Silicosis" contracted in mining operations to the list of industrial diseases under the Act, by amendment effective April 8, 1926. The balance in the account at the beginning of 1934 was $715,508.89; $519,392.42 was collected by assessment and $46,002.24 was added for interest; $102,341.93 was paid for compensation; $22,131.77

for medical aid; $40,440.23 for salaries and expenses in connection with examination of underground mine-workers; $2,501.85 for salaries and expenses of Referee Board; and $2,147.10 was transferred to the Accident Fund for the expenses of supervision. The surplus in the account December 31, 1934, was $1,111,340.73.

Investments

Particulars of the Board's investments are given in Table 14.

The total invested at the end of the year in Schedule 1 was $23,920,046.97, consisting of $24,003,556.29 value of investments at the beginning of the year, $34,224.66 invested during the year, $312,824.28 accrued interest (earned but not received), less $430,558.26 principal returned.

Particulars of each investment are shown in the list, including kind of investment, particular security, yield of interest, term, par value, book value, and accrued interest.

With the exception of short-date deposits of current funds intended for use before the current year's assessments are received, all investments consist of Province of Ontario bonds, municipal or municipally-guaranteed debentures, and Dominion of Canada guaranteed bonds.

The average rate of interest received on permanent investments in Schedule 1 during 1934 was approximately 4.92 per cent., as compared with 4.89 per cent. in 1933, and 5.25 per cent. received during 1932. Two per cent. is received on current bank balances. The increase in interest rate for 1932 was in part due to premiums on United States funds.

Schedule 2 Funds

The funds handled by the Board in respect of Schedule 2 industries include employers' deposits for pensions required to be made with the Board under the provisions of Section 28 of the Act, temporary deposits or advances of money made by employers under Section 32 to facilitate prompt payment of claims, and claimants' moneys held by the Board in cases of awards, payment of which by reason of the claimant being a minor or for other reason is deferred to a future time.

The standing of Schedule 2 funds at December 31, 1934, is shown in the latter part of Table 9, and the particulars and a list of Schedule 2 investments are given in Table 14.

At the end of 1934 the deposits held under Section 28 amounted to $3,355,070.79, deposits under Section 32 to $41,388.93, the amount of claimants' moneys held by the Board was $21,866.72, and accrued interest, neither received nor apportioned, amounted to $33,975.56, making a total of $3,456,862.19, of which $3,422,886.63 was held in permanent investments, $33,975.56 was interest accrued on investments but not yet payable, and a bank overdraft of $4,560.19.

The rate of interest on Schedule 2 funds during 1934 was 5.71 per cent., as compared with 5.75 per cent. during 1933, and 5.68 per cent. during 1932.

TABLE 9

STANDING SCHEDULE 1 ACCIDENT FUND AS AT DECEMBER 31, 1934

Assets		
Cash in Banks:		
Canadian Bank of Commerce	$2,870 74	
Royal Bank of Canada	1,746 14	
		$4,616 88
Investments		23,607,222 69
Accrued Interest and Interest Due and Unpaid on Investments		528,352 43
Due from Schedule 2 Employers for Administration Expenses paid out of Schedule 1 Funds		23,101 02
Due from Dominion of Canada for Administration Expenses paid out of Schedule 1 Funds		16,346 72
Due from Province of Ontario for Administration Expenses paid out of Schedule 1 Funds		41,635 49
Assessments estimated to be due on adjustment of 1934 Pay Rolls (see Table 1)	$960,700 00	
Less: Merit Rating Refunds to be made	32,896 17	
		927,803 83
		$25,149,079 06

Liabilities		
Overdraft—Dominion Bank		$193,002 89
Compensation Deferred, other than Pensions		43,336 22
Pension Liability		20,007,875 02
Balance of Silicosis Account at Credit of Employers		1,111,340 73
Balance at Credit of Rehabilitation Clinic Account		730 33
Compensation estimated outstanding		1,824,209 63
Medical Aid estimated outstanding		403,096 28
Assets in Excess of Liabilities:		
Disaster Reserve	$280,803 76	
Accrued Interest and Interest Due and Unpaid on Investments	528,352 43	
	$809,156 19	
Balance at Credit of Classes (Table 1)	$756,331 77	
		1,565,487 96
		$25,149,079 06

STANDING SCHEDULE 2 FUNDS AS AT DECEMBER 31, 1934

Investments	$3,422,886 63
Accrued Interest on Investments	33,975 56
	$3,456,862 19

Overdraft—Imperial Bank	$4,560 19
Balance Employers' Deposits under Setcion 28	3,355,070 79
Balance Employers' Deposits under Section 32	41,388 93
Claimants' Moneys held by Board	21,866 72
Accrued Interest on Investments	33,975 56
	$3,456,862 19

TABLE 10

PENSION FUND, SCHEDULE 1 BY CLASSES, DECEMBER 31, 1934

Class	Balance Forward from 1933	Pension Awards during 1934	Interest Received	Pension Payments	Balance as at Dec. 31, 1934	Class
	$ c.	$ c.	$ c.	$ c.	$ c.	
1	1,951,517 41	48,752 98	95,391 10	183,250 60	1,912,410 89	1
2	983,763 26	56,531 65	48,964 40	89,662 07	999,597 24	2
3	272,658 56	17,470 09	13,596 94	25,624 33	278,101 26	3
4	634,908 25	26,946 61	31,250 97	62,156 96	630,948 87	4
5	2,753,227 40	†304,348 03	139,679 21	292,611 76	2,904,642 88	5
6	862,200 26	34,044 76	42,250 80	89,278 29	849,217 53	6
7	549,664 59	9,683 60	26,590 99	58,504 44	527,434 74	7
8	373,828 10	27,885 35	18,684 06	37,405 74	382,991 77	8
9	918,889 59	42,609 37	45,288 21	91,224 50	915,562 67	9
10	992,386 31	47,664 21	49,191 02	89,087 70	1,000,153 84	10
11	894,736 47	25,942 78	43,879 45	81,906 57	882,652 13	11
12	630,744 65	44,586 00	31,387 22	66,086 29	640,631 58	12
13	460,948 25	15,474 06	22,679 84	41,376 73	457,725 42	13
14	201,684 32	*18,792 57	10,125 15	22,155 40	208,446 64	14
15	790,357 74	70,964 23	39,779 02	80,162 73	820,938 26	15
16	493,092 46	22,692 74	24,514 11	40,418 96	499,880 35	16
17	408,904 15	20,640 93	20,171 70	41,542 71	408,174 07	17
18	150,939 82	9,695 19	7,525 27	14,280 17	153,880 11	18
19	291,764 13	19,464 55	14,574 55	27,208 27	298,594 96	19
20	556,433 66	62,024 17	28,385 77	53,478 28	593,365 32	20
21	909,868 32	58,977 95	45,145 02	95,207 59	918,783 70	21
22	393,710 02	6,545 00	19,086 69	39,922 91	379,418 80	22
23	1,278,132 66	73,616 07	63,707 33	113,048 59	1,302,407 47	23
24	2,022,725 40	124,960 82	100,346 18	206,117 88	2,041,914 52	24
	19,777,085 78	1,190,313 71	982,195 00	1,941,719 47	20,007,875 02	

*Transferred from Disaster Reserve, Class 14, $2,536.00.
†Transferred from Silicosis Account, Class 5, $59,668.59.

TABLE 11

DISASTER RESERVE, DECEMBER 31, 1934

Balance in fund as at December 31, 1933	$270,095 56
Interest credited in 1934	13,244 20
	$283,339 76
Withdrawn account Class 14 Pension Fund	2,536 00
Balance as at December 31, 1934	$280,803 76

TABLE 12

COMPENSATION DEFERRED, DECEMBER 31, 1934

Balance in fund, December 31, 1933		$54,751 57
Compensation awarded, payment deferred, during 1934		13,184 15
Interest credited in 1934		2,268 15
		$70,203 87
Paid claimants during 1934:		
Principal	$24,640 19	
Interest	2,227 46	
		26,867 65
Balance, December 31, 1934		$43,336 22

TABLE 13

SILICOSIS ACCOUNT, DECEMBER 31, 1934

Balance in fund, December 31, 1933		$715,508 89
Assessments collected under Class 5		519,392 48
Interest credited in 1934		46,002 24
		$1,280,903 61
Payments made:		
Compensation	$102,341 93	
Medical Aid	22,131 77	
Salaries and Expenses	40,440 23	
To Accident Fund for Supervision	2,147 10	
Salaries and Expenses of Referee Board	2,501 85	
		169,562 88
Balance, December 31, 1934		$1,111,340 73

TABLE 14

INVESTMENTS, DECEMBER 31, 1934

Schedule 1

Book Value of Investments, January 1, 1934	$24,003,556 29
Invested during year	34,224 66
	$24,037,780 95
Less Principal Returned	430,558 26
Book Value of Investments, December 31, 1934, Principal	$23,607,222 69
Plus Accrued Interest to December 31, 1934	312,824 28
Total Book Value of Investments, December 31, 1934	$23,920,046 97

Schedule 2

Book Value of Investments, January 1, 1934	$3,416,017 96
Invested during year	7,785 94
	$3,423,803 90
Less Principal returned	917 27
Book Value of Investments, December 31, 1934, Principal	$3,422,886 63
Plus Accrued Interest to December 31, 1934	33,975 56
Total Book Value of Investments, December 31, 1934	$3,456,862 19

LIST OF INVESTMENTS

SCHEDULE 1 FUNDS

Municipal Debentures

Security	Yield Rate (Per Cent.)	Term	Par Value	Book Value	Accrued Interest
			$ c.	$ c.	$ c.
Amherstburg	5.50	1935–1938	7,552 60	7,639 85	20 00
Belleville:	6.25	May 15, 1941	65,000 00	64,145 51	491 51
	5.35	April 5, 1942	13,000 00	13,515 73	185 92
	5.35	Jan. 2, 1942	14,000 00	14,524 72	....
	5.30	May 1, 1952	120,000 00	122,720 10	1,103 02
	5.30	1947–1949	20,000 00	19,428 98	167 12
	5.041	1943–1954	156,000 00	147,733 14	1,769 45
	5.645	1946–1960	147,388 05	136,639 86	1,837 30
	5.798	1946–1950	17,856 38	16,559 36	146 70
	5.645	1945–1959	24,545 76	22,762 49	100 85
Blind River (guaranteed by Province of Ontario)	4.70	1935–1948	31,435 69	31,031 11	949 50
Bowmanville	5.27	1945–1949	41,035 25	40,009 30	1,371 60
Brampton	5.50	1935–1944	1,762 73	1,679 65	3 35
Brantford:	6.25	Dec. 31, 1942	10,000 00	8,911 65	....
	6.20	1935–1939	31,250 00	30,671 21	....
	5.972	1937–1947	52,200 00	52,286 04	....
	5.535	1940–1949	53,000 00	50,801 05	116 15
	4.95	1941–1953	13,000 00	13,666 54	31 34
	5.	Dec. 31, 1950	5,000 00	4,453 77	....
Bridgeburg	5.	1950–1956	13,403 01	14,214 36	401 90
Burlington	4.80	1942–1951	10,843 18	11,045 81	106 95
Carleton Place	5.50	1935–1941	10,808 51	10,808 51	26 00
Collingwood (guaranteed by County of Simcoe)	5.45	1947–1951	191,000 00	182,203 06	784 90
Cornwall	5.20	1944–1953	51,862 79	53,436 43	1,437 95
Dundas	5.375	1935–1946	14,824 97	14,916 81	272 53
East York:	5.446	1940–1965	172,187 29	163,064 13	1,438 81
	5.448	1940–1965	72,105 65	68,301 81	306 20
Englehart (guaranteed by Province of Ontario)	5.40	1945–1954	20,388 11	21,679 37	103 90
Essex, Village	5.50	1933 & 1934	1,266 00	1,256 46	43 60
Essex Border Utilities Commission	5.484	1942–1956	199,989 88	200,333 79	10,065 25
Etobicoke, Township:	5.017	1946–1949	45,000 00	47,107 91	1,356 17
	4.95	1940–1957	25,277 74	25,390 15	848 35
	5.18	1941–1957	71,000 00	69,626 07	593 30
	4.95	1940–1958	28,416 47	28,548 46	968 60
	6.50	1437–1948	91,071 95	83,259 85	972 35
Fort Erie:	5.05	1945–1961	50,715 22	53,540 64	229 25
	5.05	1944–1961	23,621 00	24,736 19	601 50
Fort William:	5.75	Feb 1, 1944	25,000 00	23,645 08	523 97
	6.40	May 1, 1950	10,000 00	9,609 31	100 27
	5.125	April 1, 1955	55,000 00	54,138 00	685 62
	4.91	1946 & 1951	69,924 85	70,546 70	296 95
	4.91	July 1, 1952	34,672 60	35,036 51	....
	4.91	July 1, 1947	42,751 00	43,107 65	....
	5.07	April 1, 1959	76,000 00	75,254 11	947 40
Fort William (guaranteeing McKellar Hospital)	4.625	May 1, 1948	88,000 00	86,904 36	661 80
Forest Hill Village:	5.036	1943–1957	44,730 93	44,550 13	747 55
	5.15	1940–1948	112,061 49	111,087 39	460 50
	5.055	1935–1958	89,762 14	89,285 33	368 85
	5.75	1935–1939	47,842 24	47,299 68	392 90
	5.60	1940–1959	121,602 70	114,048 40	....
	5.60	1935–1949	50,207 64	49,088 14	110 00
	5.22	1944 & 1947	26,000 00	25,545 02	213 70

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value		Book Value		Accrued Interest	
			$	c.	$	c.	$	c.
Galt:	5.622	Oct. 30, 1940	42,000	00	39,632	72	321	04
	5.65	Dec. 6, 1961	19,284	69	18,471	53	70	50
	5.30	1935–1943	76,543	21	77,212	03	3,517	80
	5.20	Dec. 1, 1962	68,400	36	71,409	25	319	50
	5.20	Dec. 1, 1962	14,135	90	15,794	10	72	03
	4.95	Dec. 15, 1964	14,097	18	15,302	28	36	10
	5.05	July 2, 1965	35,254	75	37,709	92	....	
Glencoe:	6.75	1935–1940	7,524	51	7,235	02	310	70
	5.33	May 1, 1959	70,000	00	71,620	12	632	90
Grey, County	5.25	Aug. 1, 1945	75,000	00	73,516	67	1,571	92
Guelph:	6.	1940–1944	13,287	11	12,884	16	368	39
	5.183	June 30, 1942	75,000	00	74,155	92	....	
	5.20	June 30, 1938	20,000	00	19,884	50	....	
	4.914	June 30, 1942	11,000	00	11,058	44	....	
	5.152	Dec. 31, 1953	46,441	00	40,005	96	....	
Hamilton:	5.875	1935–1937	8,740	84	8,631	24	37	11
	5.375	Feb. 1, 1939	4,726	76	4,750	07	108	35
	6.	1935--1940	65,271	30	65,271	30	643	75
	5.90	1935–1941	144,629	81	145,116	83	2,876	75
	5.45	1937 & 1938	40,000	00	40,694	29	604	93
	5.50	Feb. 1, 1936	7,000	00	7,050	07	176	05
	4.95	1935–1942	132,000	00	134,971	73	3,023	35
	5.749	1941–1945	44,000	00	41,751	48	554	52
	5.714	1938–1945	190,000	00	177,294	82	3,584	00
	5.554	1938–1945	77,000	00	72,190	30	1,442	96
	5.	1940–1945	97,000	00	93,663	59	1,088	25
	5.	1940–1947	102,000	00	98,752	11	1,521	65
	5.064	1947–1949	54,000	00	53,665	30	673	15
	5.064	1947–1949	104,000	00	103,355	64	854	80
	5.06	1947–1949	6,000	00	5,963	41	24	65
	5.06	1947 & 1949	2,000	00	1,987	80	....	
	5.058	1946–1948	19,000	00	18,005	35	208	50
	5.067	1946–1949	42,000	00	39,792	76	310	70
	5.068	1946–1948	47,000	00	44,551	26	....	
	5.068	1946–1948	55,000	00	52,053	38	1,030	70
	5.068	1946–1948	32,000	00	30,284	45	355	10
	5.068	1946–1948	9,000	00	8,518	31	66	60
	5.067	1946–1948	16,000	00	15,142	83	59	20
	5.068	1946–1949	82,000	00	77,601	44	1,536	70
	5.067	1946–1949	51,000	00	48,263	18	760	80
	5.048	Jan. 2, 1945	43,000	00	42,833	63	....	
	5.048	Feb. 1, 1945	26,000	00	25,899	38	541	40
	5.048	April 1, 1945	16,000	00	15,938	08	199	45
	5.048	June 1, 1945	55,000	00	54,787	20	218	50
	5.048	May 1, 1945	32,000	00	31,876	17	263	00
	6.012	1943–1952	170,000	00	169,809	17	4,275	60
	5.55	April 1, 1950	26,000	00	27,205	32	393	20
	5.57	April 1, 1952	17,000	00	17,811	18	257	10
	5.05	Feb. 1, 1945	50,000	00	47,782	15	937	00
	4.95	1959–1963	50,000	00	50,367	25	410	95
	5.20	Jan. 2, 1942	3,000	00	2,965	20	....	
	5.20	April 1, 1945	3,000	00	2,952	00	37	40
	5.20	July 3, 1942	5,000	00	4,785	00	....	
	5.20	Dec. 1, 1942	4,000	00	3,818	80	15	30
	5.20	Feb. 1, 1944	4,000	00	3,792	40	74	95
	5.185	1950 & 1951	28,000	00	27,434	06	230	15
	5.186	1952 & 1953	100,000	00	97,857	10	821	90
	5.18	April 1, 1951	22,000	00	21,551	98	274	25
Hanover	5.30	1945–1959	65,703	97	67,097	73	1,197	95
Hastings	5.50	Nov. 30, 1935	1,528	43	1,521	01	6	50
Hawkesbury	7.25	1933–1940	51,432	34	48,982	22	2,830	50

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value $ c.	Book Value $ c.	Accrued Interest $ c.
Hydro Electric Power Commission (guaranteed by Province of Ontario):	5.004	Jan. 2, 1970	95,000 00	91,087 37	....
	4.70	June 24, 1941	40,000 00	42,884 44	4 60
	5.35	Jan. 2, 1970	25,000 00	22,637 22	....
Kingston:	6.10	1935–1948	4,600 00	4,578 49	46 12
	6.125	1935–1945	39,300 00	39,045 66	....
	5.30	Jan. 1, 1942	35,000 00	35,402 90	....
Kingsville	6.625	1935–1941	33,155 59	33,024 27	1,251 70
Kitchener:	5.25	1943–1951	47,682 18	48,757 46	222 73
	5.25	1943–1952	28,490 33	29,144 04	390 65
	5.75	1935–1946	774 65	764 13	9 00
	4.99	1942–1945	24,849 50	24,870 17	364 20
Leaside	6.	1933–1949	96,000 00	92,887 52	2,647 25
Lincoln, County	4.95	Sept. 11, 1943	90,000 00	90,323 66	1,368 50
Listowel	5.875	1935–1947	12,544 91	12,271 18	287 35
London:	5.523	Aug. 3, 1939	24,000 00	22,423 45	397 15
	5.50	1937 & 1938	11,000 00	10,679 01	....
	6.538	June 30, 1942	25,000 00	21,650 79	3 05
	6.27	1935–1939	114,425 61	113,839 63	18 75
	5.85	Jan. 1, 1944	50,000 00	47,069 24	....
	5.35	1940 & 1941	15,000 00	15,124 59	2 26
	5.35	1937–1941	75,000 00	75,469 04	11 30
	5.25	1935–1940	91,702 78	92,362 85	1,685 80
	5.23	Aug. 3, 1939	20,000 00	18,931 62	330 96
	4.955	June 30, 1945	25,000 00	25,096 14	3 42
	4.955	1938–1942	45,000 00	45,111 38	....
	4.955	1939–1945	26,000 00	26,067 57	....
	4.981	June 30, 1942	25,000 00	23,867 51	....
	5.	1944–1949	236,000 00	236,000 00	....
	4.819	1945–1950	299,000 00	304,384 89	3,727 30
	4.819	1946–1950	58,000 00	59,006 29	....
Middlesex, County	5.10	1941–1945	79,000 00	78,464 99	1,309 45
Midland (guaranteed by County of Simcoe):	4.97	1940–1947	14,339 86	14,957 36	263 63
	4.97	1940–1944	10,720 05	11,126 80	98 52
	4.964	1940–1947	36,422 68	36,516 27	533 85
	4.971	1940–1957	47,160 21	47,305 06	1,285 60
Mimico:	5.636	1935–1960	62,940 45	62,103 45	....
	5.68	1935–1950	36,525 33	34,673 72	....
	5.05	1933–1961	46,134 66	48,226 05	2,127 05
Mount Forest	5.20	1945–1948	26,183 59	25,710 02	46 60
Napanee	4.80	1941–1943	14,623 28	14,806 00	244 35
Niagara Falls:	6.60	1938–1945	50,548 31	46,230 86	1,904 19
	6.50	1934–1941	59,553 78	58,615 12	1,801 30
	5.318	1940–1953	54,098 50	55,006 36	1,744 48
	5.32	1938–1952	16,139 50	15,722 03	73 89
North Bay:	6.	1938–1942	1,788 66	1,719 46	50 70
	5.70	1937–1942	76,276 50	77,342 35	3,071 93
	4.75	1937–1947	42,775 84	43,464 03	52 75
	4.75	1937–1943	17,558 14	17,330 88	530 35
	5.10	1939–1948	152,370 42	157,017 40	....
Northumberland and Durham, United Counties of	5.394	1935–1948	50,547 39	49,538 50	110 80
North Toronto (City of Toronto)	6.05	1935–1942	20,246 58	19,127 89	64 89
North York, Township:	4.97	1940 & 1941	8,500 00	8,736 55	372 72
	4.97	1940–1944	17,866 71	18,483 51	576 10
	4.97	1940–1943	25,811 14	26,654 63	357 80
	4.95	1943–1957	36,885 12	39,142 36	1,700 75
	4.75	1940–1948	47,687 13	48,587 88	1,998 90
	4.85	1940–1958	24,469 63	26,132 22	1,128 25

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value	Book Value	Accrued Interest
			$ c.	$ c.	$ c.
Oakville	5.50	Oct. 1, 1935	608 50	611 34	7 55
Orillia (guaranteed by County of Simcoe)	4.96	1941–1954	17,156 14	17,230 29	216 20
Oshawa:	6.75	Nov. 15, 1935	7,648 78	7,595 22	57 80
	6.40	1945–1951	45,133 48	43,520 62	2,270 24
	5.40	1935 & 1936	16,207 92	16,232 77	....
	5.375	June 1, 1938	6,068 02	5,987 56	177 88
	5.322	1939–1943	78,000 00	76,551 01	2,286 58
	5.648	1945–1949	100,000 00	98,639 12	....
Ottawa:	6.12	July 1, 1939	10,800 00	9,897 32	....
	4.95	July 1, 1951	15,000 00	16,762 81	....
	5.514	1951 & 1961	226,000 00	225,576 52	....
	5.54	July 1, 1961	114,000 00	113,368 30	....
	5.523	July 1, 1961	46,000 00	45,853 18	....
Owen Sound:	5.20	Feb. 1, 1943	25,000 00	25,508 96	576 37
	4.95	April 1, 1945	50,000 00	50,209 48	623 30
	5.10	Feb. 1, 1945	50,000 00	49,597 10	1,041 10
Oxford	6.25	1935–1936	5,224 37	5,133 74	152 40
Parry Sound:	6.50	1935–1944	14,934 10	14,716 19	373 15
	7.125	1937–1950	50,235 30	46,251 32	1,263 44
Pembroke	5.	1946–1954	75,025 53	75,025 53	2,199 36
Perth:	5.50	1935–1943	1,931 86	1,889 56	7 95
	5.50	1935–1944	254 20	248 20	1 00
	4.95	1940–1947	52,000 00	52,193 91	1,267 95
	4.79	1940–1948	91,000 00	92,513 63	2,667 65
	5.10	1945–1950	21,000 00	20,805 63	701 90
Peterborough:	6.10	Dec. 31, 1946	15,000 00	13,608 52	....
	6.25	Dec. 31, 1940	50,000 00	50,000 00	....
	5.85	June 30, 1951	50,000 00	42.917 68	....
Port Arthur:	6.595	June 1, 1940	50,000 00	48,641 48	246 60
	5.20	June 1, 1959	50,000 00	48,624 76	205 50
	6.384	June 1, 1948	53,000 00	48,801 81	239 60
Port Arthur (guaranteeing General Hospital):	5.125	Nov. 1, 1955	100,000 00	104,786 21	904 10
	5.15	Oct. 1, 1954	40,000 00	41,735 19	548 50
Preston	6.50	1935–1937	2,788 77	2,744 45	134 05
Renfrew:	5.75	Nov. 27, 1935	1,182 34	1,188 33	6 60
	5.85	1935–1947	6,508 25	6,563 48	288 85
	4.95	1947–1958	55,034 42	55,372 21	2,080 70
Richmond Hill	5.50	1935–1944	5,186 34	5,186 34	238 35
St. Catharines:	5.385	Dec. 29, 1945	50,000 00	48,422 21	13 70
	6.312	1935–1940	15,000 00	15,078 93	....
	6.321	1935–1940	17,400 00	17,367 84	....
	5.45	1935–1942	22,000 00	22,417 00	217 00
St. Marys:	5.50	Oct. 31, 1943	4,870 30	4,707 77	....
	5.50	Jan. 1, 1944	2,500 00	2,412 91	....
St. Thomas:	6.38	1937–1951	129,562 40	125,957 27	3,258 56
	6.38	1938 & 1939	3,387 15	3,263 32	3 57
	5.40	1935–1937	54,000 00	54,465 88	363 95
	5.15	1949–1953	25,000 00	24,584 57	58 22
	5.20	1935–1949	38,000 00	37,496 25	83 30
Sandwich:	5.625	1933–1935	2,070 76	2,085 28	115 65
	6.625	1932–1943	18,392 05	17,758 63	692 35
	6.549	1938–1940	6,774 32	6,547 79	18 92
	6.546	1932–1949	41,737 53	40,112 96	624 35
	5.484	1944–1955	78,106 11	78,248 85	2,165 56
	5.579	1944–1947	11,000 00	10,911 68	51 40
	5.25	1944–1958	313,879 39	323,318 64	15,797 10
	5.50	1945–1960	126,694 20	126,694 20	....
Sandwich West, Township:	5.05	1938–1948	80,272 18	85,913 94	4,037 80

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value		Book Value		Accrued Interest	
			$	c.	$	c.	$	c.
Sandwich, Windsor and Amherstburg Railway Company (guaranteed by Province of Ontario)	5.777	June 1, 1943	49,000	00	44,845	57	181	25
Sarnia:	6.50	1935–1939	4,107	63	4,014	70	....	
	6.60	Dec. 31, 1935	7,000	00	6,928	32	....	
	5.217	1942–1947	62,914	68	61,815	09	792	90
Sault Ste. Marie:	5.50	Mar. 25, 1949	24,771	50	25,994	53	394	97
	6.405	April 1, 1950	45,000	00	41,034	20	623	84
	6.555	Mar. 1, 1935	100,000	00	99,731	27	2,005	48
	5.096	Jan. 20, 1945	6,000	00	6,194	79	147	35
Scarborough, Township:	4.70	1940–1943	25,000	00	25,515	23	54	80
	5.35	1942–1958	75,474	03	72,308	64	165	40
	6.	1933–1940	25,689	23	25,341	22	56	30
Simcoe	5.50	1935–1945	5,591	83	5,718	49	14	70
Smith's Falls:	5.50	1935–1944	4,553	60	4,553	60	209	30
	5.50	1935–1946	11,572	50	11,896	32	464	15
	5.50	1935 & 1936	363	64	366	32	10	90
	5.775	1935–1937	1,308	08	1,299	20	48	10
	5.776	1935–1947	9,776	51	9,616	96	359	40
	5.022	1940–1945	64,306	49	64,212	82	2,158	21
	5.	1944–1946	54,000	00	54,000	00	1,812	33
Stratford:	5.50	Jan. 1, 1945	25,000	00	24,057	43	....	
	5.50	Jan. 1, 1945	15,000	00	14,435	64	....	
	5.50	Jan. 1, 1945	10,000	00	9,622	98	....	
	5.625	Jan. 1, 1945	13,000	00	12,385	03	....	
	6.25	Jan. 1, 1951	40,000	00	38,990	69	....	
	5.40	Jan. 1, 1942	124,000	00	128,289	00	....	
	5.40	Jan. 1, 1942	50,000	00	50,287	44	....	
	5.401	1937 & 1952	83,000	00	83,266	41	....	
	4.95	June 15, 1940	7,000	00	7,017	86	191	78
	4.95	June 15, 1955	30,000	00	30,196	40	821	92
	4.915	Jan. 1, 1945	2,000	00	2,013	17	....	
Sudbury:	7.	1934–1937	18,321	43	17,816	42	765	45
	5.50	1940–1949	49,943	48	47,989	37	136	80
	5.05	1945–1948	66,235	66	65,924	88	825	65
Thorold	5.134	Aug. 15, 1958	3,000	00	2,945	55	62	90
Tillsonburg:	5.50	Mar. 20, 1945	975	00	975	00	42	16
	5.50	1935–1944	777	93	777	93	33	50
	5.50	Mar. 20, 1935	388	67	388	67	16	70
	5.50	Mar. 20, 1935	194	33	194	33	8	35
Toronto:	6.049	1937–1939	16,000	00	15,744	27	294	14
	6.049	April 1, 1938	4,000	00	3,932	70	55	45
	6.049	1937 & 1938	7,000	00	6,902	27	....	
	6.08	July 1, 1945	7,000	00	6,411	49	....	
	6.08	July 1, 1948	4,000	00	3,425	80	....	
	6.021	Jan. 1, 1955	19,000	00	15,666	68	....	
	6.	1935–1937	20,000	00	19,839	39	274	25
	6.434	1941–1948	269,000	00	260,154	49	4,068	27
	6.436	1940–1948	231,000	00	223,862	16	2,316	40
	6.24	1935–1939	48,000	00	47,858	08	954	75
	6.20	1935–1940	50,000	00	49,784	70	1,002	74
	6.25	June 1, 1951	100,000	00	97,445	60	509	59
	6.40	June 1, 1948	59,000	00	56,895	29	300	66
	6.35	1943 & 1944	147,000	00	143,571	70	749	10
	6.35	1942 & 1944	53,000	00	51,861	53	270	08
	6.	1937–1940	44,000	00	43,221	02	....	
	6.	1936–1949	61,000	00	61,000	00	310	85
	6.	1937–1947	17,000	00	16,452	62	....	
	6.	1942–1951	52,000	00	52,000	00	786	41
	6.	1935–1940	50,000	00	49,272	21	....	
	6.	1937–1941	28,000	00	28,000	00	....	
	6.	1937–1939	9,000	00	9,000	00	45	86
	6.	1937–1939	7,000	00	7,000	00	105	86

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value	Book Value	Accrued Interest
			$ c.	$ c.	$ c.
Toronto:	6.	1937–1939	10,000 00	10,000 00	....
	6.	1937–1939	14,000 00	13,782 83	....
	6.	1938 & 1939	9,000 00	8,840 41	....
	5.40	1939–1941	150,000 00	150,715 67	2,757 55
	5.35	Mar 1, 1951	83,000 00	88,864 78	1,664 55
	5.35	Jan 1, 1951	15,000 00	16,018 65	....
	5.20	1940–1942	58,000 00	57,404 19	484 66
	5.20	1940–1951	41,000 00	41,930 97	....
	5.25	Apr. 1, 1951	50,000 00	48,628 65	630 14
	5.02	1940–1951	21,000 00	22,498 57	107 01
	5.02	Mar. 1, 1940	1,000 00	1,046 58	20 05
	4.925	July 1, 1950	20,000 00	20,161 60	....
	4.925	April 1, 1950	25,000 00	25,201 97	315 07
	5.265	July 1, 1944	35,000 00	33,011 23	....
	4.95	June 1, 1946	7,000 00	6,726 29	25 90
	4.95	1943–1945	40,000 00	38,674 33	300 82
	4.95	1943–1948	33,000 00	31,835 18	....
	4.95	1945–1951	106,000 00	106,494 44	....
	6.106	1945–1952	27,000 00	25,598 09	374 30
	4.90	June 1, 1945	18,000 00	19,610 19	91 75
	4.90	Mar. 1, 1949	2,000 00	2,123 40	36 75
	4.75	June 1, 1948	2,000 00	2,246 38	10 20
	4.77	July 1, 1948	3,000 00	3,365 22	....
	4.75	1950 & 1951	84,000 00	95,699 75	....
	4.75	June 1, 1951	75,000 00	85,640 25	382 20
	4.82	1942–1950	30,000 00	33,008 60	152 90
	4.82	Oct. 1, 1949	25,000 00	28,124 86	378 10
	5.30	1946–1958	53,000 00	54,014 41	734 75
	5.65	1953 & 1957	55,000 00	54,012 62	762 50
	5.70	1942–1947	60,000 00	59,151 80	831 80
	5.618	1958–1962	125,000 00	123,001 94	1,732 85
	5.70	1943 & 1944	17,000 00	16,761 50	235 65
	5.40	1955 & 1956	100,000 00	101,246 79	1,386 30
	5.27	1948 & 1950	89,000 00	91,014 93	1,233 80
	5.35	1945 & 1946	71,000 00	74,857 97	1,073 75
	5.35	June 1, 1946	25,000 00	26,382 32	123 30
	5.013	1945 & 1946	44,000 00	43,951 14	....
	5.10	April 1, 1952	5,000 00	5,229 68	68 55
	5.08	1950 & 1951	15,000 00	15,688 94	205 70
	5.05	April 1, 1951	11,000 00	11,549 73	150 85
	5.05	1946–1951	20,000 00	21,949 43	....
	5.241	Aug. 1, 1951	28,000 00	25,683 99	524 70
	6.41	1945–1951	100,000 00	96,380 43	1,989 05
	7.05	Dec. 1, 1940	6,000 00	5,696 40	29 60
	5.97	July 1, 1951	10,000 00	10,029 31	....
	6.70	1943 & 1945	40,000 00	38,097 01	197 25
Toronto Harbour Commission (guaranteed by City of Toronto)	5.102	Sept. 1, 1953	14,000 00	12,982 36	208 85
Toronto Housing Company (guaranteed by City of Toronto)	5.10	Oct. 1, 1953	120,000 00	118,565 16	1,496 00
Toronto Junction (City of Toronto)	6.187	Jan. 2, 1943	33,000 00	29,563 62	....
Toronto, Township	4.95	1941–1952	18,104 29	19,065 31	627 42
Trenton	5.	1942 & 1943	25,000 00	25,855 63	1,103 76
Walkerville:	6.597	1933–1942	21,878 49	21,450 62	57 60
	6.271	1942–1948	17,531 70	16,459 74	47 54
	5.	1949–1951	99,038 43	109,781 97	276 75
	4.70	1942–1947	25,511 95	26,103 82	59 40
Walkerville-East Windsor Water Commission	5.15	1947–1959	291,476 32	303,484 04	....
Welland, City	5.439	April 1, 1939	42,000 00	42,920 21	635 18
Welland, County	5.38	Dec. 15, 1945	10,000 00	9,690 76	23 28
Weston	5.	1949–1952	24,949 65	27,714 01	65 60

TABLE 14—Continued

Municipal Debentures—Continued

Security	Yield Rate (Per Cent.)	Term	Par Value	Book Value	Accrued Interest
			$ c.	$ c.	$ c.
West Gwillimbury (guaranteed by County of Simcoe)	5.459	1942–1956	36,107 36	36,254 76	....
Wheatley, Village	5.25	1951–1960	22,892 29	23,623 45	734 75
Whitby:	5.375	1935–1946	9,167 80	9,231 81	80 10
	5.375	1937–1946	2,904 32	2,927 41	27 10
	5.38	1935–1946	4,151 04	4,189 00	36 30
Windsor:	5.563	1932–1935	11,665 41	11,654 25	28 15
	6.413	1942–1950	200,257 35	192,643 60	1,020 30
	6.05	1938–1940	32,977 61	32,877 74	585 45
	6.10	Sept. 15, 1941	12,337 43	12,252 21	219 01
	6.05	June 1, 1940	13,000 00	12,961 26	66 25
	5.32	1946–1952	110,000 00	112,106 51	1,525 00
	5.101	June 1, 1951	24,000 00	26,564 79	122 30
	4.95	1944–1950	163,000 00	155,283 31	602 90
	4.95	1943–1949	37,000 49	37,186 00	152 05
Woodstock:	5.625	Dec. 31, 1936	7,045 32	6,898 89	....
	5.625	Nov. 1, 1938	10,000 00	9,621 86	....
	5.625	Nov. 30, 1937	6,000 00	5,823 15	....
York, Township:	4.958	1941–1946	100,000 00	100,298 01	424 66
	5.572	1941–1951	102,407 13	105,792 73	2,053 75
	5.408	1949–1956	225,000 00	214,721 81	4,715 77
	4.979	1942–1946	195,000 00	195,313 67	4,087 00
	5.612	1945–1956	110,295 98	103,061 14	1,828 15
	5.	1945–1955	22,000 00	22,000 00	93 45
	4.85	Feb. 1, 1952	25,000 00	25,437 71	524 00
	4.85	1941–1949	20,731 26	21,845 28	....
	4.93	1941–1952	8,679 27	9,515 22	174 05
	4.93	1941–1952	27,659 28	30,387 50	695 65
	5.08	1945–1958	74,000 00	73,284 00	922 45
York, Township (guaranteed by County of York):	5.39	1951–1956	93,000 00	88,608 82	394 95
	4.95	1946–1957	21,000 00	21,121 05	350 95
			17,776,676 09	17,642,779 30	228,143 64

TABLE 14—Continued

Other Permanent Investments

Security	Yield Rate (Per Cent.)	Term	Par Value	Book Value	Accrued Interest
			$ c.	$ c.	$ c.
Canadian National Railway Company (guaranteed by Dominion of Canada):	4.64	Feb. 1, 1954	100,000 00	104,592 44	2,095 90
	4.65	Feb. 1, 1954	50,000 00	52,227 77	1,047 95
	5.312	Feb. 1, 1954	80,000 00	76,982 97	1,676 70
	5.35	Feb. 1, 1954	36,000 00	34.486 05	754 50
	5.23	Feb. 1, 1954	121,000 00	117,649 84	2,536 05
	5.19	Feb. 1, 1954	247,000 00	241.273 77	5,176 90
	4.69	Feb. 1, 1954	50,000 00	51.966 47	1,047 95
	4.68	Feb. 1, 1954	23.000 00	23,921 93	482 05
	4.65	Feb. 1, 1954	50,000 00	52,227 77	1,047 95
	4.675	Feb. 1, 1954	50,000 00	52,059 97	1,047 95
	4.675	Feb. 1, 1954	60,000 00	62,471 96	1,257 53
	4.666	Feb. 1, 1954	25,000 00	26,061 00	524 00
	4.67	Feb. 1, 1954	90,000 00	93,723 81	1,873 95
	5.19	Feb. 1, 1954	463,000 00	452,256 93	9,640 60
	6.077	Feb. 1, 1954	40,000 00	35.056 40	832 90
	5.206	June 15, 1955	158,000 00	148.985 55	328 95
	5.032	Feb. 1, 1970	100,000 00	99.472 20	2,082 20
	5.015	Feb. 1, 1970	40,000 00	39,904 09	832 90
Dominion of Canada	5.859	Nov. 15, 1941	30,000 00	28,537 65	189 05
Ontario, Province of:	5.88	Feb. 1, 1941	50,000 00	50,329 84	1,257 53
	4.80	Dec. 1, 1942	115,000 00	120.292 50	537 20
	5.75	Dec. 1, 1942	10,000 00	9.843 95	45 20
	5.	Sept. 15, 1943	50,000 00	53,589 44	879 45
	4.90	Sept. 15, 1943	185,000 00	199.667 72	3,253 95
	4.85	Sept. 15, 1943	9,000 00	9,747 94	158 30
	4.85	Sept. 15, 1943	57,500 00	62,276 41	1,011 35
	4.85	Sept. 15, 1943	30,000 00	32,501 32	527 65
	4.85	Sept. 15, 1943	30,000 00	32,493 06	527 65
	4.75	Sept. 15, 1943	7,000 00	7,634 33	123 10
	6.10	July 1, 1946	250,000 00	237,731 46	....
	5.99	July 1, 1946	100,000 00	95,972 44	....
	5.625	July 1, 1946	115,000 00	113,794 68	....
	5.371	Dec. 1, 1947	13,000 00	11,949 99	49 70
	5.46	Feb. 1, 1947	226,000 00	226,795 62	5,210 45
	6.01	Feb. 1, 1947	125,000 00	119,446 81	2,881 85
	5.40	Feb. 1, 1947	145,000 00	146.343 24	3,342 95
	5.43	Feb. 1, 1947	116,000 00	116,743 87	2,674 40
	5.875	Feb. 1, 1947	10,000 00	9,671 21	230 55
	5.54	Feb. 1, 1947	100,000 00	99,605 35	2,290 40
	5.178	Oct. 15, 1948	250,000 00	245,614 50	263 70
	4.875	Oct. 15, 1948	50,000 00	50,631 41	520 55
	4.875	Oct. 15, 1948	60,000 00	60,754 62	624 66
	4.871	Oct. 15, 1948	25,000 00	25,324 33	260 27
	4.875	Oct. 15, 1948	50,000 00	50,629 10	520 55
	5.458	Dec. 1, 1949	300.000 00	270.806 42	1,146 60
	5.57	Jan. 16, 1949	207,000 00	185,056 11	4,287 50
	5.449	Dec. 1, 1950	700,000 00	629,653 96	2,675 30
	4.86	Jan. 15, 1956	500,000 00	476,061 28	10,417 80
	5.016	May 1, 1959	250,000 00	249,431 50	2,054 80
Ontario, Province of (guaranteeing The University of Western Ontario)	5.672	1942–1946	54,000 00	49.228 28	....
Ontario, Province of (guaranteeing Temiskaming & Northern Ontario Railway)	5.20	Feb. 1, 1959	145,000 00	120.962 13	2,431 25
			6,147,500 00	5,964,443 39	84,680 64
Total Permanent Investments, Schedule 1		....	23,924,176 09	23,607,222 69	312,824 28

TABLE 14—Continued

SCHEDULE 2 FUNDS

Security	Yield Rate (Per Cent.)	Term	Par Value		Book Value		Accrued Interest	
			$	c.	$	c.	$	c.
Barton, Township	5.354	July 14, 1952	63,000	00	64,057	10	1,604	34
Belleville:	5.669	1943–1945	3,450	26	3,282	54	....	
	5.613	1943–1950	8,000	00	7,566	99	17	55
	5.704	1940–1946	10,488	47	9,992	50	219	80
Brantford	5.42	Dec. 31, 1949	15,000	00	12,834	04	....	
Chippawa, Town (guaranteed by County of Welland)	5.525	1941–1944	22,578	30	22,539	00	520	52
Cornwall	5.535	1941–1943	10,248	45	10,221	48	284	13
Etobicoke, Township:	5.485	1941–1955	24,867	79	23,721	80	415	60
	5.07	1941–1956	32,574	89	32,381	27	1,227	13
	5.067	1942–1956	58,470	29	60,988	66	2,422	90
	5.55	1948–1955	43,000	00	40,523	50	453	55
Galt	5.34	Dec. 15, 1965	19,460	45	18,460	48	42	65
Hamilton:	5.697	1942–1946	152,000	00	138,765	45	2,867	18
	5.54	1942–1946	134,000	00	123,794	23	512	15
	5.444	1942–1946	35,000	00	33,841	81	292	47
Hydro Electric Power Commission (guaranteed by Province of Ontario)	5.45	June 24, 1941	15,000	00	15,443	10	17	25
Kingston	5.453	July 1, 1955	120,000	00	113,335	86	....	
Kitchener	5.475	1944–1947	10,418	06	10,888	12	104	45
London:	5.444	Dec. 30, 1954	411,000	00	388,942	65	....	
	5.439	1940–1956	280,000	00	270,624	51	76	70
	5.26	1940–1955	101,000	00	98,979	04	....	
North Bay	5.799	1940–1943	33,000	00	32,392	67	1,516	65
Ontario, Province of:	5.528	Oct. 1, 1942	31,000	00	29,960	23	390	68
	5.376	April 1, 1952	19,000	00	18,199	42	239	45
	4.875	Oct. 15, 1948	50,000	00	50,630	41	520	55
Ottawa	5.574	1941–1946	36,000	00	34,643	05	....	
Owen Sound	4.95	April 1, 1945	100,000	00	100,413	14	1,246	60
Peterborough	5.514	Dec. 31, 1945	20,000	00	19,165	72	....	
Renfrew	5.40	1949–1953	50,234	63	50,792	97	461	73
Stamford, Township	5.458	1941–1954	246,628	19	247,643	12	408	80
Stratford:	5.201	July 1, 1954	82,000	00	82,985	75	2,190	86
	5.611	1940–1956	122,613	19	116,971	40	3,359	25
Thorold	5.50	1940–1959	49,546	82	46,910	51	617	60
Toronto:	6.325	June 1, 1940	4,000	00	3,946	37	20	38
	6.325	June 1, 1942	21,000	00	20,596	73	107	01
	6.254	1937–1940	130,000	00	129,001	10	662	55
	5.557	Dec. 1, 1940	100,000	00	102,234	85	509	59
	5.25	1940 & 1943	42,000	00	43,668	23	214	03
	5.25	1950 & 1951	50,000	00	48,642	49	630	14
	5.287	1948–1954	172,000	00	157,309	66	1,293	53
	5.269	1948–1954	154,000	00	141,035	73	588	57
	5.572	1947–1954	229,000	00	201,678	20	3,444	40
	5.458	Jan. 1, 1949	5,000	00	4,524	25	....	
	5.455	July 1, 1950	4,000	00	3,814	20	....	
Victoria, County	5.50	1951–1959	17,954	20	16,823	48	39	35
Waterloo, Town	5.68	1941–1947	19,195	72	18,949	96	885	07
York, Township	5.74	1944–1961	214,197	93	198 768	86	3,550	40
Total Permanent Investments, Schedule 2	...	...	3,571,927	64	3,422,886	63	33,975	56

CHAPTER V

1933 OPERATIONS

This chapter deals with the year 1933, containing information which was not available when the report for that year was made.

It gives the final financial statement for Schedule 1 industries for the year, estimates of the adjustments of assessments and of the outstanding compensation and medical aid having to be used in the provisional statement given in Table 1 of the 1933 report; and it gives statistical information as to the accidents which happened during 1933, their causes, the nature of the injuries suffered, the number, time loss, total and average cost of the different classes of cases, and the age, wage, nationality, and marital condition of the injured workmen.

This information is contained in Tables 15 to 27.

Final Financial Statement, Schedule 1, 1933

Table 15 gives the final financial statement for Schedule 1 industries for 1933, provisional figures for which were given in Table 1 of the 1933 report. It shows the income and credits and the expenditures and charges and the balance for each class of industry; also the actual assessments and accident cost and other items of income and expenditure for each class, and the assessments and accident cost for each group of industry within the class. The list of industries included in each class and group will be found in the Board's rate book, the list of industries in the different classes is also printed with the Act, and their general nature is indicated at the bottom of Table 1 of this report.

The net income and credits for all the classes for the year were $2,921,438.53, and the net expenditures and charges, $3,178,824.21, leaving a deficit for the year of $257,385.68. Adding the surplus forward from prior years, $1,847,258.55, leaves a net actual surplus of $1,589,872.87, as compared with a provisional or estimated surplus of $1,368,495.25, the disparity being largely due to claims for accidents occurring in 1933 and prior years not being finally disposed of during 1934.

Assessments and Accident Cost

The assessments and accident cost (the latter comprising compensation and medical aid and payments on account of rehabilitation) in Schedule 1 for each year since the commencement of the Act, and the totals to the end of 1933, are as follows:

Year	Assessment	Accident Cost
1915	$1,831,537 52	$1,091,020 43
1916	2,361,463 20	1,880,004 37
1917	2,662,383 29	2,639,560 56
1918	3,303,575 83	3,214,427 57
1919	3,840,949 07	4,474,847 38
1920	5,579,333 45	5,041,947 30
1921	4,594,452 37	4,277,034 67
1922	3,984,594 64	4,323,801 07
1923	3,771,321 09	4,977,331 82
1924	4,524,700 86	4,746,314 60
1925	4,390,854 75	4,438,802 13
1926	5,167,126 64	4,711,970 90
1927	5,465,763 17	5,082,073 61
1928	6,739,696 80	6,083,772 14
1929	7,505,431 10	6,861,274 51
1930	6,396,105 73	5,925,502 17
1931	4,608,677 15	4,472,209 18
1932	3,292,309 25	3,177,386 47
1933	2,729,936 41	2,795,085 82
Totals	$82,750,212 32	$80,214,366 70

Pay Roll and Rates of Assessment

As assessments are in the form of a percentage of pay roll, the average rate paid by employers in Schedule 1 can be determined by dividing the total assessments for the year by the total pay roll. The following table shows the total amount of pay roll and the total assessments and the average rate for $100 pay roll for each year:

Year	Total Pay Roll	Total Assessments	Average Rate per $100
1915	$147,603,000	$1,831,537 52	$1 24
1916	220,840,000	2,361,463 20	1 07
1917	286,903,000	2,662,383 29	93
1918	310,450,000	3,303,575 83	1 06
1919	325,226,000	3,840,949 07	1 18
1920	464,589,000	5,579,333 45	1 20
1921	355,259,000	4,594,452 37	1 29
1922	391,888,000	3,984,594 64	1 02
1923	434,163,000	3,771,321 09	87
1924	386,318,000	4,524,700 86	1 17
1925	390,652,000	4,390,854 75	1 04
1926	424,926,000	5,167,126 64	1 22
1927	455,016,000	5,465,763 17	1 20
1928	504,102,000	6,739,696 80	1 34
1929	559,429,000	7,505,431 10	1 34
1930	472,742,000	6,396,105 73	1 35
1931	389,740,000	4,608,677 15	1 18
1932	317,605,000	3,292,309 25	1 04
1933	288,917,000	2,729,936 41	94

Final Accident Figures, 1933

Table 16 shows the number of accidents happening in 1933 (in all industries under the Act) for which payment of compensation or medical aid was made. The total number was 33,163, of which 159 were death cases, 1,511 cases involving some degree of permanent disability, 14,235 temporary disability cases, and 17,258 cases which involved medical aid only. Schedule 2 cases involving medical aid only are not included as in these cases medical aid is furnished directly by the employer.

The complete figures for each year since the commencement of the Act are as follows:

Year	Medical Aid Only	Temporary Disability	Permanent Disability	Death	Totals
1915	*	9,311	1,339	296	10,946
1916	*	15,993	2,232	373	18,598
1917	† 4,267	21,556	2,475	370	28,668
1918	12,822	24,089	2,624	366	39,901
1919	11,769	22,418	2,457	364	37,008
1920	15,566	27,423	2,735	373	46,097
1921	12,141	22,855	2,079	331	37,406
1922	15,913	24,461	2,082	325	42,781
1923	20,125	28,954	2,340	327	51,746
1924	20,811	25,980	2,191	315	49,297
1925	22,444	26,040	2,157	264	50,905
1926	25,330	27,150	2,421	308	55,209
1927	27,852	28,836	2,476	311	59,475
1928	31,688	30,440	2,926	414	65,468
1929	34,582	32,920	3,372	417	71,291
1930	29,189	25,613	3,147	394	58,343
1931	21,970	20,543	2,495	231	45,239
1932	17,320	15,466	1,805	167	34,758
1933	17,258	14,235	1,511	159	33,163
Totals	341,047	444,283	44,864	6,105	836,299

*No medical aid. †Half year only.

Accident Frequencies, Schedule 1

Comparison of accident frequencies can be made by correlating the number of accidents with the total number of full-year workers, data for this being available, however, only in Schedule 1. Eliminating accidents in which medical aid only was paid, the number of accidents for each 100 full-year workers for the different years are:

Year	Temporary Disability	Permanent Disability	Death	Totals
1915	3.63	.58	.12	4.32
1916	4.99	.79	.10	5.88
1917	5.78	.72	.07	6.57
1918	5.81	.66	.07	6.54
1919	5.81	.68	.07	6.56
1920	6.23	.67	.07	6.97
1921	6.25	.60	.05	6.90
1922	5.82	.52	.06	6.40
1923	6.02	.51	.05	6.58
1924	6.08	.54	.06	6.68
1925	5.94	.51	.05	6.50
1926	5.84	.54	.05	6.43
1927	5.94	.53	.05	6.52
1928	5.85	.58	.07	6.50
1929	5.80	.61	.06	6.47
1930	5.08	.66	.07	5.81
1931	4.28	.56	.04	4.88
1932	3.59	.45	.03	4.07
1933	3.22	.37	.03	3.62

On the same basis of calculation, the frequency of medical aid only cases has been: 1918, 3.66; 1919, 3.70; 1920, 4.26; 1921, 4.24; 1922, 4.67; 1923, 4.96; 1924, 5.84; 1925, 6.09; 1926, 6.37; 1927, 6.73; 1928, 7.09; 1929, 7.06; 1930, 6.84; 1931, 5.72; 1932, 5.06; and 1933, 4.94.

Statistical Distributions

Tables 17 to 27 give statistical details regarding accidents and workmen, including, where the data is available, Schedule 2 and Crown cases as well as Schedule 1. Considerations of space preclude more extensive tabulations, but the original material is retained and still fuller information is always available concerning the accidents in any of the different classes of industry.

Month of Occurrence

Table 17 gives the month of occurrence of all accidents. The month in which the greatest number occurred during 1933 was August, with 3,131, and the month with the lowest number was April, with 2,094.

Accidents According to Locality

The distribution of accidents according to the county or district in which they occurred is contained in Table 18. York had the highest number, with 8,744; and next in order were: Temiskaming, with 3,970; Wentworth, with 1,753; Essex, with 1,588; and Thunder Bay, with 1,577. The greatest number of deaths (29) were in York: there were 25 in Temiskaming; 9 in Wentworth; 8 in Lincoln; and 7 in Sudbury.

Time Loss, Age and Wage

In Table 19 is given the average age and wage of workmen receiving compensation, and the total and average time loss for each class of industry, and for each category of disability. The average age for 1933 was 35.49 years. The average wage for 1933 was $15.86, as compared with $19.49 for 1932, and $21.96 for 1931. The total time loss in temporary disability cases was 325,349 days, or an average of 22.86 days, as compared with an average of 23.01 days in 1932, and 22.73 days in 1931.

Compensation and Medical Aid Costs, Schedule 1

Table 20 contains the total and average cost of compensation and medical aid by classes in Schedule 1 for each kind of disability.

The total cost of all accidents was $2,795,085.82, of which $2,159,879.32 was for compensation (including payments for rehabilitation) and $635,206.50 was for medical aid.

Of the $2,159,879.32 compensation cost, $893,806.64 was for temporary disability cases, $795,948.56 was for permanent disability cases, and $470,124.12 was for death cases.

The average cost of temporary disability cases was $113.22, of which $81.16 was for compensation and $32.06 was for medical aid, the average in 1932 being $105.18.

The average cost of permanent disability cases was $769.39, of which $188.97 was for temporary disability, $441.23 was for permanent disability, and $139.19 was for medical aid.

The average cost of death cases, where there were dependants, was $5,573.43; and the average cost of all death cases, $4,511.24, of which $27.00 was for temporary disability, $122.17 for burial expenses, $4,285.97 for death benefits, and $76.10 for medical aid.

The average cost of all cases in which compensation was paid was $217.80, of which $174.44 was for compensation and $43.36 was for medical aid, as compared with $227.71 for 1932, and $236.83 for 1931.

The average cost of medical aid in medical aid only cases was $5.82, as compared with $5.73 in 1932, and $5.79 in 1931.

Allegiance of Injured

Table 21 shows the allegiance of injured workers who received compensation, as taken from their own reports. There were 13,935, or over 87 per cent., of British allegiance, and 1,970 of foreign allegiance. Among the aliens the most numerous were: Finns, Poles, Russians, Italians, and Czechs.

Sex and Marital Condition of Injured

Table 22 gives the sex and marital condition of those receiving compensation. There were 15,725 males, and 180 females. Of the males, 10,026 were married and 23 of the females. There were 282 widowers and 27 widows.

Duration of Disability

Table 23 shows the week of termination of temporary disability cases. In over 41 per cent. of the cases the disability terminated in from one to two weeks. In 2 cases the disability lasted for more than a year.

Nature of Injuries

The first part of Table 24 shows the number of various kinds of temporary disability injuries in the different classes of industry, the second part gives an analysis of the permanent disability cases, showing the number of injuries to the several parts of the body and the percentages of impairment of earning capacity, and the third part of the table shows the number and nature of the industrial disease cases.

For 1933 there were 4,695 cuts, lacerations, and punctures; 3,697 bruises, contusions, and abrasions; 1,781 fractures; 1,603 sprains, strains, twistings, and wrenchings; 817 crushes; 577 scalds and burns; 448 injuries to eyes; 120 dislocations; and 194 herniae.

Among the 1,511 permanent disabilities were 10 permanent total disability cases, and 151 cases exceeded ten per cent. of working capacity.

There were 36 industrial disease cases, of which 6 involved medical aid only, 16 were temporary disability cases, 8 were permanent disability cases, and 6 were death cases. Included in these totals are 18 cases of lead poisoning, 5 cases of chrome poisoning, and 13 cases of silicosis.

Causes of Accidents

Table 25 gives the prime causes of accidents in 1933. Machinery was responsible for 6,594 out of a total of 33,163, or 19.88 per cent. of all cases, as compared with 18.60 per cent. in 1932, and 18.01 per cent. in 1931.

Blood-Poisoning Cases

The number of compensation cases in which the seriousness of the accident was due to concurrent or subsequent infection rather than to the nature of the wound is shown in Table 26. There were 1,285 such cases, or 8.1 per cent. of cases compensated, including 14 cases of permanent disability and 5 deaths.

Death Cases

The nature of awards, the number, relationship, and residence of the dependants, are shown in Table 27.

TABLE 15

FINAL FINANCIAL STATEMENT FOR 1933, SCHEDULE 1

BY CLASSES

Class	Income and Credits	Expenditure and Charges	Balance for 1933	Balance Forward Prior Years	Balance at Dec. 31, 1933	Class
	$ c.	$ c.	$ c.	$ c.	$ c.	
1	210,078 83	245,379 18	—35,300 35	—180,725 50	—216,025 85	1
2	162,793 26	157,513 61	5,279 65	124,555 66	129,835 31	2
3	39,752 89	40,313 44	—560 55	—20,920 63	—21,481 18	3
4	68,591 81	84,951 95	—16,360 14	19,731 51	3,371 37	4
5	493,993 14	**537,597 71	—43,604 57	639,560 23	595,955 66	5
6	84,857 38	133,134 12	—48,276 74	175,561 06	127,284 32	6
7	34,401 98	40,951 73	—6,549 75	125,442 76	118,893 01	7
8	67,974 18	66,582 40	1,391 78	42,678 94	44,070 72	8
9	87,957 67	86,838 60	1,119 07	198,666 91	199,785 98	9
10	169,562 83	182,434 74	—12,871 91	121,949 53	109,077 62	10
11	105,096 60	100,271 57	4,825 03	30,455 13	35,280 16	11
12	119,431 97	134,039 14	—14,607 17	58,800 10	44,192 93	12
13	58,990 49	62,156 59	—3,166 10	21,250 08	18,083 98	13
14	37,358 65	57,040 95	—19,682 30	5,502 17	—14,180 13	14
15	209,914 48	264,018 82	—54,104 34	—17,373 82	—71,478 16	15
16	71,045 33	62,169 12	8,876 21	55,887 88	64,764 09	16
17	75,661 45	85,485 62	—9,824 17	73,758 28	63,934 11	17
18	73,814 75	71,783 04	2,031 71	18,204 09	20,235 80	18
19	54,038 24	60,461 01	—6,422 77	22,795 72	16,372 95	19
20	175,074 72	197,234 59	—22,159 87	32,729 40	10,569 53	20
21	142,941 13	119,028 16	23,912 97	68,838 43	92,751 40	21
22	46,564 68	41,579 34	4,985 34	44,732 83	49,718 17	22
23	68,738 82	82,486 25	—13,747 43	267,634 41	253,886 98	23
24	262,803 25	265 372 53	—2,569 28	—82,456 62	—85,025 90	24
	†2,921,438 53	*3,178,824 21	—257,385 68	1,847,258 55	1,589,872 87	

†Includes $7,005.02 reimbursement from D.P. & N.H.; Disaster Reserve (Class 17), $370.00.
*Includes $4,421.01 for Rehabilitation.
**Includes $13,596.93 for Mine Rescue Work.

TABLE 15—Continued

BY GROUPS

Assessments and Compensation			Other Credits and Charges			
Group and Class	Assessments	Compensation and Medical Aid	Interest Sec. 8, 105, 112 (3), etc.	Administration Expenses and Safety Assns.	Balance Forward Prior Years	Balance at December 31, 1933
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Group 010	81,696 98	93,533 90				
" 011	45,895 90	24,935 23				
" 012	75,530 31	86,323 01				
Class 1	203,123 19	204,792 14	6,955 64	40,587 04	—180,725 50	—216,025 85
Group 020	94,030 33	61,176 98				
" 021	27,063 15	33,549 98				
" 022	30,808 34	42,661 24				
Class 2	151,901 82	137,388 20	10,891 44	20,125 41	124,555 66	129,835 31
Group 030	25,280 57	24,502 47				
" 031	3,966 01	2,214 74				
" 032	1,893 23	287 66				
" 033	8,519 42	6,524 60				
Class 3	39,659 23	33,529 47	93 66	6,783 97	—20,920 63	—21,481 18
Group 040	35,510 24	44,890 84				
" 041	10,411 96	8,792 19				
" 042	6,351 62	4,973 15				
" 043	4,156 70	2,578 22				
" 044	10,487 17	10,737 69				
Class 4	66,917 69	71,972 09	1,674 12	12,979 86	19,731 51	3,371 37
Group 050	4,506 85	8,768 02				
" 051	324,384 99	373,970 81				
" 052	77,375 10	58,786 39				
" 053	11,799 70	21,976 86				
" 055	8,970 07	9,344 78				
" 056	18,084 74	10,849 35				
" 057	2,375 84	226 22				
Class 5	447,497 29	483,922 43	46,495 85	53,675 28	639,560 23	595,955 66
Group 060	6,431 35	20,573 86				
" 061	14,211 10	9,270 73				
" 062	3,461 73	10,122 58				
" 063	10,720 71	11,206 90				
" 064	15,532 88	17,696 48				
" 065	16,116 19	42,247 64				
" 066	7,950 95	7,441 26				
Class 6	74,424 91	118,559 45	10,432 47	14,574 67	175,561 06	127,284 32
Group 070	15,571 79	15,930 86				
" 071	11,915 56	19,629 04				
Class 7	27,487 35	35,559 90	6,914 63	5,391 83	125,442 76	118,893 01
Group 080	22,508 59	27,689 34				
" 081	5,519 26	2,073 97				
" 082	25,756 29	17,454 66				
" 083	9,749 37	10,701 83				
Class 8	63,533 51	57,919 80	4,440 67	8,662 60	42,678 94	44,070 72

TABLE 15—Continued
BY GROUPS

Assessments and Compensation			Other Credits and Charges			
Group and Class	Assessments	Compensation and Medical Aid	Interest Sec. 8, 105, 112 (3), etc.	Administration Expenses and Safety Assns.	Balance Forward Prior Years	Balance at December 31, 1933
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Group 090	5,134 89	5,490 71				
" 091	10,252 53	10,993 38				
" 092	—289 82	1,873 59				
" 093	2,568 40	2,109 12				
" 094	52,567 46	55,295 74				
" 095	3,524 61	1,017 94				
Class 9	73.758 07	76,780 48	14,199 60	10,058 12	198,666 91	199,785 98
Group 100	32.121 84	25,756 66				
" 101	59,495 73	50,265 50				
" 102	14,142 22	13,727 71				
" 103	14,776 81	25,331 61				
" 104	11,327 45	8,416 24				
" 105	9,245 93	25,180 75				
" 106	14,690 85	7,843 44				
" 107	3.761 04	3,181 51				
Class 10	159,561 87	159,703 42	10.000 96	22,731 32	121,949 53	109,077 62
Group 110	22,239 82	13.585 69				
" 111	72,341 04	61,817 66				
" 112	4,468 44	4.149 70				
" 113	1,461 41	1,007 70				
Class 11	100,510 71	80,560 75	4,585 89	19,710 82	30,455 13	35,280 16
Group 120	31,688 01	42,493 33				
" 121	41,103 82	37,517 99				
" 122	21,644 09	17,965 70				
" 123	4,462 74	3,449 34				
" 124	14,570 77	13,371 33				
Class 12	113,469 43	114,797 69	5,962 54	19,241 45	58,800 10	44,192 93
Group 130	33,408 64	44,499 77				
" 131	22,439 90	12,928 92				
Class 13	55,848 54	57.428 69	3,141 95	4,727 90	21,250 08	18,083 98
Group 140	37,219 66	49,729 22				
Class 14	37,219 66	49,729 22	138 99	7,311 73	5,502 17	—14,180 13
Group 150	66,483 04	68,995 01				
" 151	47,961 61	50,918 56				
" 152	14,585 41	21,144 58				
" 153	29,271 12	40,852 19				
" 154	13,613 85	9,409 05				
" 155	28,756 46	27,494 91				
" 156	3,576 27	4,194 17				
Class 15	204,247 76	223,008 47	5,666 72	41,010 35	—17,373 82	—71,478 16
Group 160	31,720 70	22,534 95				
" 161	10,418 49	7,599 19				
" 162	6,055 86	4,210 00				
" 163	9,381 22	12,491 68				
" 164	8,998 01	5,060 25				
Class 16	66.574 28	51,896 07	4,471 05	10.273 05	55,887 88	64,764 09

TABLE 15—Continued

BY GROUPS

Assessments and Compensation			Other Credits and Charges			
Group and Class	Assessments	Compensation and Medical Aid	Interest Sec. 8, 105, 112 (3), etc.	Administration Expenses and Safety Assns.	Balance Forward Prior Years	Balance at December 31, 1933
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Group 170	38,041 53	42,327 30				
" 171	22,899 17	28,417 27				
" 172	9,082 80	2,640 70				
Class 17	70,023 50	73,385 27	5,637 95	12,100 35	73,758 28	63,934 11
Group 180	53,536 16	38,993 85				
" 181	17,402 65	18,918 29				
Class 18	70,938 81	57,912 14	2,875 94	13,870 90	18,204 09	20,235 80
Group 190	14,493 74	10,853 95				
" 191	23,166 91	29,023 81				
" 192	7,657 69	6,900 89				
" 193	6,161 21	3,662 21				
Class 19	51,479 55	50,440 86	2,558 69	10,020 15	22,795 72	16,372 95
Group 200	112,099 58	112,328 61				
" 201	58,586 78	70,719 78				
Class 20	170,686 36	183,048 39	4,388 36	14,186 20	32,729 40	10,569 53
Group 210	96,213 29	77,542 23				
" 211	35,010 24	24,191 53				
Class 21	131,223 53	101,733 76	11,717 60	17,294 40	68,838 43	92,751 40
Group 220	40,006 18	28,592 83				
Class 22	40,006 18	28,592 83	6,558 50	12,986 51	44,732 83	49,718 17
Group 230	7,634 68	14,630 82				
" 231	16,784 94	27,911 77				
" 232	28,405 09	33,338 90				
Class 23	52,824 71	75,881 49	15,914 11	6,604 76	267,634 41	253,886 98
Group 240	24,418 63	23,716 93				
" 241	4,530 04	6,760 60				
" 242	15,076 14	12,808 30				
" 243	7,688 45	9,750 66				
" 244	33,443 64	36,966 16				
" 245	30,997 76	21,428 02				
" 246	13,267 26	10,117 10				
" 247	9,983 09	11,552 97				
" 248	113,033 25	128,886 55				
" 249	4,580 20	4,555 52				
Class 24	257,018 46	266,542 81	5,784 79	—1,170 28	—82,456 62	—85,025 90
Schedule 1	2,729,936 41	*2,795,085 82	†191,502 12	**383,738 39	1,847,258 55	1,589,872 87

†Includes $7,005.02 reimbursement from D.P. & N.H.; Disaster Reserve (Class 17) $370.00.
*Includes $4,421.01 for Rehabilitation.
**Includes $13,596.93 for Mine Rescue Work.

TABLE 16

NUMBER OF ACCIDENTS IN 1933 INVOLVING PAYMENT

Class	Medical Aid Only	Temporary Disability	Permanent Disability	Death	TOTALS
1	287	1,154	136	10	1,587
2	998	785	68	4	1,855
3	255	180	39	. .	474
4	516	336	76	1	929
5	1,541	1,369	146	29	3,085
6	238	155	25	8	426
7	181	71	18	1	271
8	501	184	20	2	707
9	851	194	32	2	1,079
10	1,990	591	116	3	2,700
11	1,843	454	53	2	2,352
12	644	426	46	6	1,122
13	199	189	27	2	417
14	382	163	13	2	560
15	1,616	1,121	99	5	2,841
16	513	231	39	2	785
17	658	356	50	1	1,065
18	796	482	25	. .	1,303
19	482	261	27	. .	770
20	557	780	61	10	1,408
21	438	429	37	4	908
22	122	86	8	2	218
23	195	223	18	3	439
24	1,086	793	84	7	1,970
Schedule 2	4	1,251	105	31	1,391
Crown Cases	365	1,971	143	22	2,501
TOTALS	17,258	14,235	1,511	159	33,163

TABLE 17

MONTH OF OCCURRENCE OF ACCIDENTS, 1933

Month of Occurrence	Medical Aid Only	Temporary Disability	Permanent Disability	Death	TOTALS
January	1,173	1,118	108	7	2,406
February	1,169	1,047	90	13	2,319
March	1,270	1,067	120	16	2,473
April	1,139	864	84	7	2,094
May	1,433	1,004	98	12	2,547
June	1,516	1,181	102	10	2,809
July	1,587	1,251	135	16	2,989
August	1,749	1,211	164	7	3,131
September	1,628	1,264	149	19	3,060
October	1,649	1,301	154	18	3,122
November	1,511	1,425	156	14	3,106
December	1,434	1,502	151	20	3,107
TOTALS	17,258	14,235	1,511	159	33,163

TABLE 18

LOCALITY OF ACCIDENTS, 1933

County or District	Medical Aid Only	Temporary Disability	Permanent Disability	Death	TOTALS
Algoma	215	383	37	4	639
Brant	373	180	33	2	588
Bruce	38	79	13	1	131
Carleton	422	547	52	3	1,024
Dufferin	16	12	1	..	29
Dundas	2	4	1	..	7
Durham	95	38	4	1	138
Elgin	70	87	12	1	170
Essex	1,189	340	55	4	1,588
Frontenac	130	112	20	2	264
Glengarry	7	14	..	..	21
Grenville	87	55	9	..	151
Grey	129	126	19	1	275
Haldimand	50	42	4	1	97
Haliburton	22	36	5	..	63
Halton	105	111	4	..	220
Hastings	181	290	33	3	507
Huron	48	66	9	1	124
Kenora	172	500	34	5	711
Kent	266	133	17	3	419
Lambton	165	136	25	4	330
Lanark	61	90	8	1	160
Leeds	93	68	9	2	172
Lennox-Addington	16	18	9	1	44
Lincoln	418	203	30	8	659
Manitoulin	7	13	..	2	22
Middlesex	343	366	45	2	756
Muskoka	42	79	4	..	125
Nipissing	87	436	30	6	559
Norfolk	97	58	5	..	160
Northumberland	44	42	2	1	89
Ontario	408	131	13	3	555
Oxford	241	121	25	1	388
Parry Sound	28	145	6	3	182
Patricia	14	35	3	2	54
Peel	48	58	10	1	117
Perth	167	136	24	1	328
Peterborough	233	147	27	2	409
Prescott	72	37	4	..	113
Prince Edward	5	20	6	..	31
Rainy River	54	135	5	1	195
Renfrew	127	184	26	2	339
Russell	1	12	1	..	14
Simcoe	217	191	11	..	419
Stormont	102	102	18	1	223
Sudbury	114	426	53	7	600
Temiskaming	2,166	1,631	148	25	3,970
Thunder Bay	434	1,047	90	6	1,577
Victoria	59	129	16	2	206
Waterloo	768	366	42	1	1,177
Welland	670	331	48	3	1,052
Wellington	248	179	11	1	439
Wentworth	1,078	560	106	9	1,753
York	5,003	3,426	286	29	8,744
Not in Ontario	11	22	3	..	36
TOTALS	17,258	14,235	1,511	159	33,163

TABLE 19

TIME LOSS, AVERAGE AGE, AND AVERAGE WAGE, 1933

	TIME LOSS*						AGE	WAGE
	Temporary Disability		Permanent Disability		Death Cases		All Cases	All Cases
Class	Total Days	Average Days	Total Days	Average Days	Total Days	Average Days	Average Age (Years)	Average Weekly Wage
								$ c.
1	28,984	25.12	10,868	79.91	44	4.40	33.11	11.40
2	16,956	21.60	4,840	71.18	0	0	35.51	15.94
3	3,417	18.98	2,312	59.28	—	——	37.85	13.09
4	7,194	21.41	5,021	66.07	0	0	36.36	13.20
5	30,454	22.25	15,737	107.79	845	29.14	32.83	27.06
6	4,039	26.06	2,119	84.76	0	0	35.80	13.84
7	2,129	29.99	1,005	55.83	0	0	42.17	16.87
8	4,578	24.88	1,191	59.55	0	0	40.00	14.20
9	4,647	23.95	2,177	68.03	9	4.50	42.86	15.71
10	11,117	18.81	7,398	63.78	182	60.67	34.19	15.38
11	9,583	21.11	4,097	77.30	15	7.50	34.07	17.30
12	8,804	20.67	4,075	88.59	0	0	37.54	20.13
13	4,191	22.17	2,455	90.93	0	0	39.19	17.95
14	3,198	19.62	1,438	110.62	15	7.50	34.51	17.74
15	23,987	21.40	7,829	79.08	38	7.60	33.43	17.27
16	4,637	20.07	2,203	56.49	0	0	34.42	16.17
17	7,097	19.94	3,240	64.80	0	0	32.35	15.67
18	8,057	16.72	2,186	87.44	—	——	29.48	15.68
19	5,159	19.77	1,869	69.22	—	——	31.02	17.85
20	18,983	24.34	6,317	103.56	91	9.10	34.23	16.23
21	10,559	24.61	4,684	126.59	0	0	36.67	15.99
22	2,365	27.50	515	64.38	0	0	38.85	20.79
23	5,468	24.52	3,631	201.72	0	0	37.61	14.80
24	18,724	23.61	11,627	138.42	7	1.00	35.88	17.41
Schedule 2	34,602	27.66	15,210	144.86	32	1.03	41.87	19.67
Crown...	46,418	23.55	13,839	96.78	2	.55	36.50	12.87
ALL.....	325,349	22.86	137,883	91.25	1,280	8.11	35.49	15.86

*This does not include loss of man power by permanent impairment or death.

TABLE 20

TOTAL AND AVERAGE COMPENSATION AND MEDICAL AID COSTS, 1933, SCHEDULE 1, BY CLASSES

Compensation Costs

Class	Temporary Disability Cases		Permanent Disability Cases				Death Cases						ALL CASES	
	For Temporary Disability		For Temporary Disability		For Permanent Disability		For Temporary Disability		For Death Benefits		For Funeral Expenses			
	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	65,084 53	56 40	18,196 07	133 79	35,704 87	262 54	91 67	9 17	26,408 00	2,640 80	1,144 50	114 45	146,629 64	112 79
2	39,879 51	50 80	9,771 49	143 70	26,394 02	388 15	0	0	21,087 00	5,271 75	500 00	125 00	97,632 02	113 92
3	9,759 24	54 22	4,119 04	105 62	10,229 41	262 29	....	....	....	....	....	....	24,107 69	110 08
4	19,427 57	57 82	10,439 07	137 36	16,553 00	217 80	0	0	5,889 00	5,889 00	125 00	125 00	52,433 64	126 96
5	126,205 35	92 19	46,274 51	316 95	154,683 94	1,059 48	1,995 25	688 02	74,191 00	2,558 31	3,475 00	119 83	406,825 05	263 49
6	42,035 12	271 19	4,402 81	176 11	8,759 02	350 36	0	0	47,355 00	5,919 38	1,000 00	125 00	103,551 95	550 81
7	13,171 13	185 51	1,927 67	107 09	6,995 64	388 65	0	0	6,339 00	6,339 00	125 00	125 00	28,558 44	317 32
8	18,568 71	100 92	2,177 90	108 90	10,267 68	513 38	0	0	13,734 00	6,867 00	250 00	125 00	44,998 29	218 44
9	37,539 62	193 50	4,471 41	139 73	8,946 33	279 57	8 73	4 37	5,645 00	2,822 50	250 00	125 00	56,861 09	249 39
10	44,760 94	75 74	14,193 13	122 35	44,515 27	383 75	501 26	167 09	13,562 00	4,520 67	375 00	125 00	117,907 60	166 07
11	21,516 94	47 39	8,392 15	158 34	16,551 00	312 28	19 74	9 87	979 00	489 50	250 00	125 00	47,708 83	93 73
12	31,406 03	73 72	9,716 27	211 22	15,789 00	343 24	0	0	32,623 00	5,437 17	750 00	125 00	90,284 30	188 88
13	15,868 27	83 96	5,718 20	211 79	12,284 52	454 98	0	0	12,678 00	6,339 00	250 00	125 00	46,798 99	214 67
14	11,366 97	69 74	3,284 60	252 66	11,476 40	882 80	50 00	25 00	11,995 00	5,997 50	250 00	125 00	38,422 97	215 86
15	84,967 91	75 80	16,455 60	166 22	34,852 00	352 04	90 44	18 09	33,328 00	6,665 60	625 00	125 00	170,318 95	139 04
16	15,022 05	65 03	4,535 82	116 30	7,430 00	190 51	0	0	12,134 00	6,067 00	250 00	125 00	39,371 87	144 75
17	21,506 74	60 41	6,616 13	132 32	20,503 71	410 07	0	0	6,875 00	6,875 00	125 00	125 00	55,626 58	136 67
18	23,561 89	48 88	4,091 36	163 65	6,878 00	275 12	....	....	....	....	....	....	34,531 25	68 11
19	17,907 21	68 61	4,460 40	165 20	12,562 00	465 26	....	....	....	....	....	....	34,929 61	121 28
20	59,692 17	76 53	12,902 19	211 51	21,332 92	349 72	88 29	8 83	51,929 00	5,192 90	1,250 00	125 00	147,194 57	172 97
21	40,521 72	94 46	9,950 02	268 92	8,461 52	228 69	0	0	19,042 00	4,760 50	500 00	125 00	78,475 26	166 97
22	7,788 76	90 57	1,234 26	154 28	2,365 00	295 63	0	0	11,259 00	5,629 50	250 00	125 00	22,897 02	238 51
23	30,461 70	136 60	9,489 56	527 20	9,383 66	521 31	0	0	13,618 00	4,539 33	330 00	110 00	63,282 92	259 36
24	95,786 56	120 79	25,854 77	307 79	54,355 22	647 09	16 24	2 32	33,643 00	4,806 14	875 00	125 00	210,530 79	238 16
ALL	893,806 64	81 16	238,674 43	188 97	557,274 13	441 23	2,861 62	27 00	454,313 00	4,285 97	12,949 50	122 17	2,159,879 32	174 44

TABLE 20—Continued

Medical Aid Costs

Class	When Medical Aid Only		In Temporary Disability Cases		In Permanent Disability Cases		In Death Cases		FOR ALL CASES	
	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	1,962 30	6 84	41,808 07	36 23	14,010 13	103 02	382 00	38 20	58,162 50	36 65
2	5,228 35	5 24	23,526 53	29 97	10,988 55	161 60	12 75	3 19	39,756 18	21 43
3	1,443 25	5 66	4,625 50	25 70	3,353 03	85 98	....	.....	9,421 78	19 88
4	2,862 70	5 55	10,140 22	30 18	6,527 78	85 89	7 75	7 75	19,538 45	21 03
5	9,004 25	5 84	42,672 54	31 17	23,810 14	163 08	1,610 45	55 53	77,097 38	24 99
6	1,449 85	6 09	9,350 55	60 33	4,173 80	166 95	33 30	4 16	15,007 50	35 23
7	1,088 75	6 02	4,240 41	59 72	1,669 30	92 74	3 00	3 00	7,001 46	25 84
8	2,431 60	4 85	8,673 71	47 14	1,708 35	85 42	107 85	53 93	12,921 51	18 28
9	4,366 50	5 13	12,410 74	63 97	2,909 90	90 93	232 25	116 13	19,919 39	18 46
10	10,472 70	5 26	18,011 36	30 48	11,054 76	95 30	2,257 00	752 33	41,795 82	15 48
11	11,628 45	6 31	14,789 86	32 58	6,353 86	119 88	79 75	39 88	32,851 92	13 97
12	4,581 35	7 11	14,243 79	33 44	5,558 75	120 84	129 50	21 58	24,513 39	21 85
13	1,228 00	6 17	5,673 95	30 02	3,593 50	133 09	134 25	67 13	10,629 70	25 49
14	2,500 80	6 55	4,664 70	28 62	3,717 75	285 98	423 00	211 50	11,306 25	20 19
15	9,742 35	6 03	31,693 94	28 27	10,932 18	110 43	321 05	64 21	52,689 52	18 55
16	3,256 00	6 35	5,947 37	25 75	3,206 08	82 21	114 75	57 38	12,524 20	15 95
17	3,728 10	5 67	8,898 59	25 00	5,132 00	102 64	0	0	17,758 69	16 67
18	4,722 50	5 93	14,267 39	29 60	4,391 00	175 64			23,380 89	17 94
19	2,913 90	6 05	8,779 19	33 64	3,818 16	141 41	....	.....	15,511 25	20 14
20	3,387 05	6 08	21,830 38	27 99	8,933 39	146 45	....	.....	35,853 82	25 46
21	2,515 10	5 74	10,733 48	25 02	9,900 92	267 59	1,703 00	170 30	23,258 50	25 62
22	718 00	5 89	4,292 81	49 92	677 00	84 63	109 00	27 25	5,695 81	26 13
23	1,006 10	5 16	5,587 86	25 06	6,002 61	333 48	8 00	4 00	12,598 57	28 70
24	6,072 75	5 59	26,169 30	33 00	23,373 62	278 26	2 00	67	56,012 02	28 43
							396 35	56 62		
ALL...	98,310 70	5 82	353,032 24	32 06	175,796 56	139 19	8,067 00	76 10	635,206 50	21 70

TABLE 21

ALLEGIANCE OF INJURED WORKERS, 1933

Allegiance to	Temporary Disability	Permanent Disability	Death	TOTALS
Austria	95	8	1	104
Belgium	3	1	1	5
Bulgaria	10	....	....	10
China	2	....	....	2
Czecho-Slovakia	171	15	6	192
Denmark	18	3	....	21
Esthonia	2	....	....	2
Finland	339	41	3	383
France	23	....	....	23
Germany	52	9	....	61
Great Britain	12,436	1,359	140	13,935
Greece	1	....	....	1
Holland	3	1	....	4
Italy	214	8	2	224
Japan	2	....	1	3
Jugo-Slavia	81	5	1	87
Latvia	4	....	....	4
Lithuania	10	....	....	10
Mexico	1	....	....	1
Norway	35	3	....	38
Persia	2	....	....	2
Peru	1	....	....	1
Poland	312	22	4	338
Portugal	1	....	....	1
Roumania	31	2	....	33
Russia	229	21	....	250
Spain	2	....	....	2
Sweden	104	6	....	110
Switzerland	2	....	....	2
Turkey	7	1	....	8
United States	42	6	....	48
TOTALS	14,235	1,511	159	15,905

TABLE 22

SEX AND MARITAL CONDITION OF INJURED WORKERS, 1933

Sex and Marital Condition	Temporary Disability	Permanent Disability	Death	TOTALS
Males—				
Married	8,876	1,025	125	10,026
Single	4,919	405	27	5,351
Widowed	243	35	4	282
Not specified	58	5	3	66
Totals	14,096	1,470	159	15,725
Females—				
Married	17	6	....	23
Single	97	33	....	130
Widowed	25	2	....	27
Not Specified	....	....	....	....
Totals	139	41	....	180
GRAND TOTALS	14,235	1,511	159	15,905

TABLE 23

WEEK OF TERMINATION OF TEMPORARY DISABILITIES, 1933

In 5,898 cases the disability terminated in 1 to 2 weeks after the accident.
" 2,695 " " " " 2 " 3 " " " "
" 1,641 " " " " 3 " 4 " " " "
" 1,107 " " " " 4 " 5 " " " "
" 735 " " " " 5 " 6 " " " "
" 520 " " " " 6 " 7 " " " "
" 309 " " " " 7 " 8 " " " "
" 281 " " " " 8 " 9 " " " "
" 193 " " " " 9 " 10 " " " "
" 176 " " " " 10 " 11 " " " "
" 128 " " " " 11 " 12 " " " "
" 97 " " " " 12 " 13 " " " "
" 68 " " " " 13 " 14 " " " "
" 65 " " " " 14 " 15 " " " "
" 49 " " " " 15 " 16 " " " "
" 39 " " " " 16 " 17 " " " "
" 37 " " " " 17 " 18 " " " "
" 28 " " " " 18 " 19 " " " "
" 21 " " " " 19 " 20 " " " "
" 18 " " " " 20 " 21 " " " "
" 19 " " " " 21 " 22 " " " "
" 6 " " " " 22 " 23 " " " "
" 13 " " " " 23 " 24 " " " "
" 16 " " " " 24 " 25 " " " "
" 10 " " " " 25 " 26 " " " "
" 13 " " " " 26 " 27 " " " "
" 7 " " " " 27 " 28 " " " "
" 8 " " " " 28 " 29 " " " "
" 4 " " " " 29 " 30 " " " "
" 1 " " " " 30 " 31 " " " "
" 4 " " " " 31 " 32 " " " "
" 6 " " " " 32 " 33 " " " "
" 2 " " " " 33 " 34 " " " "
" 1 " " " " 34 " 35 " " " "
" 3 " " " " 35 " 36 " " " "
" 15 " " " " 36 " 52 " " " "
" 2 " " " did not terminate in 52 " " " "

14,235 TOTAL CASES

TABLE 24

NATURE OF INJURIES, 1933

Temporary Disability Cases

Class	Bruises, Contusions, and Abrasions	Cuts, Lacerations, and Punctures	Fractures	Crushes	Sprains, Strains Twistings, and Wrenchings	Scalds and Burns	Eye Injuries	Herniae	Internal Injuries	Concussions (brain, spine, etc.)	Dislocations	All Other Injuries	Industrial Diseases (Schedule 3)	TOTALS
1.......	298	464	115	64	102	13	25	16	4	2	8	43	....	1,154
2.......	199	259	85	53	91	21	13	18	2	1	8	35	....	785
3.......	33	105	11	4	12	6	3	4	....	....	2	....	....	180
4.......	71	147	38	23	25	8	12	1	....	....	8	3	....	336
5.......	315	498	255	72	86	41	75	7	....	1	7	10	2	1,369
6.......	51	39	22	13	7	11	4	3	....	....	2	2	1	155
7.......	15	10	24	1	8	9	2	1	....	....	1	....	....	71
8.......	31	52	22	14	12	38	9	2	1	....	1	1	1	184
9.......	49	64	23	18	15	12	9	1	....	....	1	2	....	194
10.......	103	244	71	37	37	51	32	8	2	....	4	2	....	591
11.......	97	158	53	25	45	25	32	3	....	2	5	8	1	454
12......	117	104	54	14	64	36	12	10	2	2	3	6	2	426
13.......	65	46	24	6	34	7	2	2	....	....	3	....	....	189
14.......	36	83	9	7	15	2	4	5	....	....	....	2	....	163
15.......	247	419	116	84	139	66	18	14	....	....	7	11	....	1,121
16.......	37	103	33	9	19	13	9	1	....	....	2	5	....	231
17.......	82	146	39	22	35	16	6	....	....	....	2	7	1	356
18.......	80	277	33	17	39	20	5	5	....	2	3	1	....	482
19.......	66	85	36	27	23	8	5	3	1	....	2	5	....	261
20.......	243	191	112	42	139	10	12	6	....	1	6	13	5	780
21.......	128	113	50	34	45	25	12	8	1	....	6	7	....	429
22.......	34	20	5	1	12	9	3	2	....	....	....	....	....	86
23.......	69	56	34	14	35	6	2	1	....	....	2	4	....	223
24.......	210	281	78	35	83	40	34	9	2	1	10	10	....	793
Sched. 2..	373	266	190	73	199	44	37	27	....	3	8	28	3	1,251
Crown...	648	465	249	108	282	40	71	37	1	4	19	47	....	1,971
ALL.....	3,697	4,695	1,781	817	1,603	577	448	194	16	19	120	252	16	14,235

TABLE 24—Continued

Permanent Disability Cases

Part of Body Affected	Per Cent. Impairment of Total Earning Capacity											
	0.0– 9.9	10.0–19.9	20.0–29.9	30.0–39.9	40.0–49.9	50.0–59.9	60.0–69.9	70.0–79.9	80.0–89.9	90.0–99.9	100.	TOTALS
Foot	107	4	2	2	....	....	....	....	....	....	....	115
Leg	120	4	3	....	1	3	1	1	....	....	....	133
Head	21	....	1	....	....	1	....	....	....	....	....	23
Face	10	....	....	....	....	....	....	....	....	....	....	10
Eye	56	54	2	....	....	....	1	1	....	....	2	116
Ear	5	....	....	....	....	....	....	....	....	....	....	5
Arm	119	2	1	4	1	2	3	....	1	....	....	133
Hand	37	7	7	5	....	....	....	....	1	....	1	58
Thumb and two fingers	2	....	....	....	....	....	....	....	....	....	....	2
Thumb and one finger	12	2	....	....	....	....	....	....	....	....	....	14
Thumb	151	3	....	....	....	....	....	....	....	....	....	154
One finger	564	....	....	....	....	....	....	....	....	....	....	564
Two fingers	66	2	1	....	....	....	....	....	....	....	....	69
Three fingers	14	3	....	....	....	....	....	....	....	....	....	17
Four fingers	8	2	2	....	....	....	....	....	....	....	....	12
Internal organs	2	....	....	....	....	....	....	....	....	....	....	2
Industrial diseases	4	....	....	....	....	1	....	1	....	....	2	8
All other	62	1	3	1	....	2	2	....	....	....	5	76
TOTALS	1,360	84	22	12	2	9	7	3	2	....	10	1,511

Industrial Diseases

Description of Disease	Medical Aid Only	Temporary Disability	Permanent Disability	Death	TOTALS
Lead poisoning or its sequelae	2	14	2	..	18
Silicosis, pneumoconiosis, phthisis	..	1	6	6	13
Chrome poisoning or its sequelae	4	1	..	..	5
TOTALS	6	16	8	6	36

TABLE 25

CAUSES OF ACCIDENTS, 1933

Cause	Medical Aid Only	Temp. Dis.	Perm. Dis.	Death	TOTALS
A. Prime Movers:					
1. Motors, engines, fans, pumps, and automatic stokers	10	25	7	1	43
2. Shafting, coupling, collars, set-screws, and keys	7	15	2	1	25
3. Belts, lines, pulleys, chains, and sprockets	78	70	15	2	165
4. Gears, cogs, cams, and friction wheels	64	26	8	..	98
Totals	159	136	32	4	331
B. Working Machines:					
1. Brick-making machines	..	2	1	1	4
2. Glass-making machines	7	4	2	..	13
3. Pottery-making machines	..	1	..	..	1
4. Stone-working machines	4	9	3	1	17
5. Mine drills	237	125	8	..	370
6. Contracting machines	35	72	3	..	110
7. Metal-working machines, n.e.s.	145	27	4	..	176
8. Abrasive wheels	1,103	71	11	..	1,185
9. Drilling and reaming machines	68	24	6	..	98
10. Lathes	241	47	9	..	297
11. Milling machines	48	11	3	..	62
12. Pneumatic tools	253	56	5	..	314
13. Presses—cutting, shaping, forming	227	111	68	1	407
14. Shearing and punching machines	45	15	5	..	65
15. Wire-working machines	63	15	6	..	84
16. Welding and heat-cutting machines	127	11	3	..	141
17. Wood-working machines, n.e.s.	50	21	3	..	74
18. Planers, jointers, and edgers	73	71	35	..	179
19. Saws	229	213	103	1	546
20. Shapers, moulders, and headers	59	38	32	..	129
21. Pulp and paper-making machines, n.e.s.	22	4	..	..	26
22. Barkers	23	35	7	..	65
23. In-running rolls	48	35	4	..	87
24. Paper-products and printing machines, n.e.s.	9	4	1	..	14
25. Cutting machines	15	9	3	..	27
26. Presses—printing and embossing	100	61	16	..	177
27. Stayers	14	16	4	..	34
28. Tanning machines	24	15	9	..	48
29. Leather-working machines	16	16	3	1	36
30. Rubber-working machines	21	7	5	..	33
31. Textile machines, n.e.s.	28	26	8	..	62
32. Carders	19	9	6	..	34
33. Pickers	5	1	1	..	7
34. Sewers	198	113	..	..	311
35. Finishers and launderers	8	14	4	1	27
36. Knitters	24	22	8	..	54
37. Cutters	11	13	1	..	25
38. Weavers	48	23	7	1	79
39. Spinners	11	15	4	..	30
40. Food-products, laboratory, and tobacco machines, n.e.s.	46	63	26	..	135
41. Baking machines	46	25	2	..	73
42. Bottling machines	18	14	7	..	39
43. Office machines	4	..	..	..	4
Totals	3,772	1,484	436	7	5,699

TABLE 25—Continued

Cause	Medical Aid Only	Temp. Dis.	Perm. Dis.	Death	TOTALS
C. Hoisting Apparatus:					
1. Elevators	28	38	6	1	73
2. Cranes	37	39	11	1	88
3. Conveyers	66	84	7	1	158
4. Mine cages	6	23	8	1	38
5. Other hoisting apparatus	63	120	22	2	207
Totals	200	304	54	6	564
D. Dangerous Substances:					
1. Steam escapes	31	38	5	3	77
2. Explosives	20	54	16	5	95
3. Electric currents	34	47	6	7	94
4. Conflagrations	1	1	..	2	4
5. Hot and inflammable substances and flames	420	396	19	3	838
6. Corrosive substances	145	89	8	1	243
7. Poisonous and deleterious substances	15	48	7	6	76
Totals	666	673	61	27	1,427
E. Stepping On or Striking Against Objects:					
1. Stepping on objects	257	164	..	1	422
2. Striking against objects	1,855	641	28	1	2,525
Totals	2,112	805	28	2	2,947
F. Falling Objects:					
1. From collapse of structure	4	13	2	1	20
2. From elevations	206	224	12	3	445
3. In mines and quarries	260	410	31	7	708
4. Other	33	148	14	5	200
Totals	503	795	59	16	1,373
G. Handling Objects:					
1. Heavy objects—loading, carrying, rolling, or piling	2,994	3,071	197	4	6,266
2. Sharp objects	387	202	12	..	601
3. Hand trucks, carts, and wheel-barrows	167	228	6	..	401
Totals	3,548	3,501	215	4	7,268
H. Tools:	1,903	1,890	185	4	3,982
I. Runaways and Animals:					
1. Runaways	2	14	3	1	20
2. Animals	79	107	9	..	195
Totals	81	121	12	1	215

TABLE 25—Continued

Cause	Medical Aid Only	Temp. Dis.	Perm. Dis.	Death	TOTALS
J. Moving Trains, Vehicles, etc.:					
1. Train wrecks	1	16	7	1	25
2. Caught in switch or hit fixed objects	1	6	..	1	8
3. Struck by or caught between cars and engines	4	47	13	15	79
4. Other causes, cars and engines	3	31	3	..	37
5. Mine and quarry cars	32	68	9	1	110
6. Automobiles and other power vehicles	358	407	44	13	822
7. Animal-drawn vehicles	35	119	10	2	166
8. All other vehicles, including boats	4	7	2	1	14
Totals	438	701	88	34	1,261
K. Falls of Persons:					
1. From elevations	76	213	40	13	342
2. From ladders	81	236	33	3	353
3. Into excavations, pits, and shafts	9	60	6	1	76
4. On level	912	1,945	106	1	2,964
5. Into elevator shafts	..	1	2	..	3
6. From vehicles	88	360	21	6	475
7. From collapse of support	14	90	11	3	118
8. On steps or stairways	133	192	9	1	335
9. From tools slipping	9	10	1	..	20
Totals	1,322	3,107	229	28	4,686
L. All Other Causes:					
1. Flying fragments	2,301	370	71	..	2,742
2. Doors, gates, windows, and covers	169	131	15	..	315
3. Inhalation of gases, fumes, etc	26	15	..	4	45
4. Immersion in water and drenchings	..	..	..	12	12
5. Exposure to elements	41	160	21	1	223
6. Violence	7	15	2	2	26
7. Cave-ins	2	24	3	7	36
8. Not elsewhere specified	8	3	..	..	11
Totals	2,554	718	112	26	3,410
GRAND TOTALS	17,258	14,235	1,511	159	33,163

TABLE 26

BLOOD-POISONING CASES, 1933

Ascribed to time of injury	171
Developed 1 day after injury	239
“ 2 days “ “	184
“ 3 “ “ “	144
“ 4 “ “ “	137
“ 5 “ “ “	83
“ 6 “ “ “	72
“ 7 “ “ “	59
“ 8 “ “ “	35
“ 9 “ “ “	29
“ 10 “ “ “	17
“ 11 “ “ “	17
“ 12 “ “ “	12
“ 13 “ “ “	6
“ 14 “ “ “	8
“ 15 “ “ “	4
“ 16 “ “ “	4
“ 17 “ “ “	7
“ 18 “ “ “	4
“ 19 “ “ “	3
“ 20 “ “ “	4
“ 21 “ “ “	6
“ 22 “ “ “	4
“ 23 “ “ “	3
“ 27 “ “ “	4
“ 28 “ “ “	1
“ 29 “ “ “	1
“ 31 “ “ “	1
“ 36 “ “ “	1
“ 38 “ “ “	1
“ 45 “ “ “	1
“ 60 “ “ “	1
“ 66 “ “ “	1
“ 103 “ “ “	1
“ 290 “ “ “	1
Immobilized joints due to infections	9
Amputations due to infections	3
Permanent eye injuries due to infections	2
Deaths due to infections	5
TOTAL CASES OF INFECTIONS	1,285

TABLE 27

DEATH CASES, 1933

Number of Cases

Pension Awards	116
Lump Sums	14
Burial Expenses and Medical Aid only	24
Burial Expenses only	5
TOTAL	159

Number, Relationship, and Residence of Dependants

Relationship of Dependants	Resident in Ontario	Not Resident in Ontario	TOTALS
Widow	112	5	117
Child	159	10	169
Mother	8	1	9
Father	6	1	7
Other	1	..	1
TOTALS	286	17	303

APPENDIX

SUMMARY OF COMPENSATION AND MEDICAL AID AWARDED

From Commencement of Act to End of 1934

Compensation Awarded

Schedule 1 Industries	$68,818,266 10
Schedule 2 (including Crown Cases)	21,704,823 50
Total Compensation	$90,523,089 60

Medical Aid Paid

Schedule 1 Industries	14,725,924 99
Schedule 2 (including Crown Cases)—Furnished by Employer	
Total Benefits Awarded by Board	$105,249,014 59

SUMMARY OF ACCIDENTS REPORTED

From Commencement of Act to End of 1934

Schedule 1 Industries	904,473	
Schedule 2 (including Crown Cases)	158,340	
Total Number of Accidents Reported		1,062,813

FINANCIAL STATEMENT FOR SCHEDULE 1 INDUSTRIES

From Commencement of Act to End of 1934

Income and Credit		
Net assessments received		$85,677,668 67
Received under Section 8		121,568 88
Received under Section 83 (4)		51,706 16
Received under Section 105		136,314 20
Received under Section 112 (3)		5,471 59
Received from D. P. & N. H.		196,270 19
Interest received		2,867,491 74
Credited from Disaster Reserve		265,083 48
Credited from Pension Fund		1,027,214 62
Received from C. N. I. B.		167 70
Received from A. C. R.		8,605 67
Assessments estimated to be due on adjustment of 1934 Pay Rolls	$960,700 00	
Less: Merit Rating Refunds to be made	32,896 17	
		927,803 83
		$91,285,366 73

Expenditure and Charges	
Compensation paid other than pensions, compensation deferred, and under Secs. 22 and 36	$37,172,035 79
Pensions awarded	29,917,112 26
Deferred Compensation awarded	760,140 50
Paid under Section 22	996 40
Paid under former Section 36	41 75
Paid under Section 8	8,878 10
Medical Aid paid	14,643,608 70
Administration Expenses paid	3,479,972 20
Paid to Safety Associations	1,824,263 21
Rehabilitation paid	42,186 09
Transferred to Disaster Reserve	353,259 80
Compensation estimated outstanding	1,824,209 63
Medical Aid estimated outstanding	403,096 28
Paid under Mine Rescue Work	99,234 25
Balance at Credit of Classes (Table 1)	756,331 77
	$91,285,366 73

SUMMARY OF PENSION FUND, SCHEDULE 1

From Commencement of Act to End of 1934

Pension awards	$29,799,823 78
Amount transferred from Disaster Reserve	119,824 48
Amount transferred from Silicosis Account	454,380 04
Interest added	10,995,381 92
	$41,369,410 22
Pension payments	20,334,320 58
	$21,035,089 64
Amount transferred to Current Fund	1,027,214 62
Balance December 31, 1934	$20,007,875 02

SUMMARY OF COMPENSATION DEFERRED, SCHEDULE 1

From Commencement of Act to End of 1934

Compensation deferred	$760,140 50
Interest added	98,896 70
	$859,037 20
Paid on Compensation Deferred, Principal and Interest	815,700 98
Balance December 31, 1934	$43,336 22

SUMMARY OF DISASTER RESERVE, SCHEDULE 1

From Commencement of Act to End of 1934

Amount set aside	$353,259 80
Interest added	195,163 44
	$548,423 24
Transferred to classes	267,619 48
Balance December 31, 1934	$280,803 76

SUMMARY OF SILICOSIS ACCOUNT, SCHEDULE 1

From Commencement of Act to End of 1934

Assessments collected		$2,369,430 69
Interest added		100,911 88
		$2,470,342 57
Payments made:		
Compensation	$922,900 26	
Medical Aid	82,316 29	
Salaries and Expenses	249,460 13	
Handling Claims and Supervision	82,134 82	
Salaries and Expenses of Referee Board	22,190 34	
		$1,359,001 84
Balance, December 31, 1934		$1,111,340 73

SUMMARY OF INVESTMENTS, SCHEDULE 1

From Commencement of Act to End of 1934

Invested	$39,163,288 85
Less principal returned	15,556,066 16
Book Value of Investments, December 31, 1934, Principal	$23,607,222 69
Plus accrued interest not received or apportioned	312,824 28
Total Book Value of Investments, December 31, 1934	$23,920,046 97

SUMMARY OF SCHEDULE 2 FUNDS

From Commencement of Act to End of 1934

Received from employers		$16,514,144 48
Interest received		2,845,383 54
		$19,359,528 02
Payments made	$15,125,733 42	
Deposits returned to employers	815,468 16	
		15,941,201 58
Cash in Bank and Invested, December 31, 1934		$3,418,326 44

SUMMARY OF INVESTMENTS, SCHEDULE 2

From Commencement of Act to End of 1934

Invested	$3,948,126 71
Less principal returned	525,240 08
Book Value of Investments, December 31, 1934, Principal	3,422,886 63
Plus accrued interest not received or apportioned	33,975 56
Total Book Value of Investments, December 31, 1934	$3,456,862 19

SUMMARY OF RECEIPTS AND PAYMENTS

From Commencement of Act to End of 1934

Schedule 1

Receipts		
Assessments, including additional assessments, added percentage, and interest for under or over-estimate	$86,635,827 25	
Less Merit Rating (Charges .... $1,067,195 43 Refunds 2,025,354 01)	—$958,158 58	
		$85,677,668 67
Section 8		121,568 88
Section 83 (4)		51,706 16
Section 105		136,314 20
Section 112 (3)		5,471 59
D. P. & N. H.		196,270 19
C. N. I. B.		167 70
A. C. R.		8,605 67
Silicosis		2,369,430 69
From Province of Ontario under Section 77, grants for administration expenses		655,500 00
From Schedule 2 and Crown employers for share of administration expenses		670,041 60
Interest from investments and bank deposits		14,257,845 68
Principal returned from investments		15,556,066 16
From Special Statistical Services		53,718 01
Rehabilitation Clinic		20,482 14
Refund of Administration Expenses result of special investigation		782 35
From Dominion Bank — Overdraft, Dec. 31, 1934		193,002 89
		$119,974,642 58

Payments	
Compensation Payments other than on pensions or deferred awards or under Secs. 22 or 36	$37,172,035 79
Pensions	20,334,320 58
Deferred Awards, principal and interest	815,700 98
Under Section 22	996 40
Under former Section 36	41 75
Under Section 8	8,878 10
Medical Aid	14,643,608 70
Rehabilitation	42,186 09
Administration Expenses	5,027,706 71
Safety Associations	1,824,263 21
Investments	39,163,288 85
Silicosis	822,486 98
Mine Rescue Work	94,759 63
Rehabilitation Clinic	19,751 81
Overpayment of Administration Expenses from Schedule 2 employers (refunded in 1926)	12
Cash in Bank, Dec. 31, 1934	4,616 88
	$119,974,642 58

Schedule 2

Receipts		Payments	
From Employers for Deposits under Section 28 and for Claimants' Moneys	$6,115,671 80	To Claimants out of Deposits under Section 28 and Claimants' Moneys	$4,848,530 32
From Employers for Deposits under Section 32	10,398,472 68	Returned to Employers out of Deposits under Section 28	735,587 51
Interest from Investments and Bank Deposits	2,845,383 54	Paid out of Deposits under Section 32:	
Principal returned from Investments	525,240 08	To Claimants	10,274,769 54
Bank Overdraft, Dec. 31, 1934—Imperial Bank	4,560 19	Returned to Employers	74,111 15
		To Schedule 1 for Administration Expenses	5,769 50
		Rehabilitation	2,433 56
		Investments	3,948,126 71
	$19,889,328 29		$19,889,328 29

AUDITORS' CERTIFICATE

THE WORKMEN'S COMPENSATION BOARD OF ONTARIO,
Metropolitan Building, Toronto, Ontario.

Gentlemen:

We have completed a continuous audit of the books of the Board for the year ended December 31, 1934, and have obtained all the information and explanations we have required.

In our opinion, the Statements of Receipts and Payments, Table 6, Schedules 1 and 2, do truly and fairly set forth the cash transactions of the Board for the calendar year 1934, subject to any adjustments of receipts of interest on Province of Ontario registered bonds payable in New York funds, but which have been paid in Canadian funds. In addition to the cash receipts for the year, as shown in the accompanying statements, principal and interest on investments became due to a total of $145,716.34, but were not paid, making a total of principal and interest in arrears as at December 31, 1934, of $284,973.80.

Bank balances at the close of the period have been verified by direct communication with the Board's Bankers.

The Investments of the Board as at December 31, 1934, as shown by the books, have been verified by count. The book value of these Investments taken at cost, adjusted by amortization, is $27,030,109.32.

Respectfully submitted,

FRED PAGE HIGGINS & CO.,
Chartered Accountants.

Toronto, February 25, 1935.

TABLE 6

STATEMENT OF RECEIPTS AND PAYMENTS DURING 1934

Schedule 1

RECEIPTS

Cash in Banks, Jan. 1, 1934:		
Canadian Bank of Commerce	$3,965 45	
Royal Bank of Canada	1,465 61	
		$5,431 06
Net Assessments, Penalties, etc.:		
Gross Assessments	$3,077,896 84	
Under Sec. 8.....	10,403 11	
Under Sec. 105...	2,988 96	
Under Sec. 112(3)	182 50	
From D.P. and N.H.	6,470 16	
From Accident Cost Refunds ..	716 00	
	$3,098,657 57	
Less:		
Assessments and Penalties refunded	$46,810 99	
Merit Rating Refunds	94,085 00	
	$140,895 99	
		2,957,761 58
Interest	$1,137,843 50	
Exchange	752 43	
Apportionment of Discounts on Debenture Purchases applicable to 1934 (See *Contra*) ..	33,940 94	
		$1,172,536 87
Less:		
Interest charged on Bank Overdraft	10,225 64	
		1,162,311 23
From Schedule 2 and Crown Employers for Administration Expenses, account of prior years paid out of Schedule 1 in 1933		63,789 11
Principal returned from Investments	$409,434 05	
Decrease in value of Investments by amortization of premiums	21,124 21	
		430,558 26
Silicosis		519,392 48
Special Statistical Services.......		11,436 75
Rehabilitation Clinic:		
Refunds from Medical Aid, Schedule 1	$6,356 64	
From Schedule 2 Employers	397 00	
		6,753 64
Bank Overdraft, Dec. 31, 1934, Dominion Bank		193,002 89
		$5,350,437 00

PAYMENTS

Bank Overdraft, Jan. 1, 1934, Dominion Bank		$419,176 99
Compensation other than Pensions and Compensation Deferred...		1,494,817 81
Pensions		1,941,719 47
Deferred Compensation		26,867 65
Rehabilitation		4,250 15
Medical Aid		819,606 64
Silicosis		107,747 19
Under Section 8................		210 39
Mine Rescue Work............		10,860 09
Administration Expenses		333,895 74
Safety Associations		146,065 93
Rehabilitation Clinic Expenses...		6,377 41
Investments	$283 72	
Increase in Book Value of Investments by Apportionment of Discounts on Debenture Purchases applicable to 1934 (See *Contra*)	33,940 94	
		34,224 66
Cash in Banks, Dec. 31, 1934:		
Canadian Bank of Commerce	$2,870 74	
Royal Bank of Canada	1,746 14	
		4,616 88
		$5,350,437 00

Schedule 2

RECEIPTS

Cash in Imperial Bank, Jan. 1, 1934		$33,438 08
From Employers, Deposits under Section 28		119,481 24
From Employers, Claimants' Moneys		705 00
From Employers, Deposits under Section 32		916,658 61
Interest	$179,759 92	
Exchange	631 21	
Apportionment of Discount on Debenture Purchases applicable to 1934 (See Contra)	7,785 94	
	$188,177 07	
Less:		
Interest charged on Bank Overdraft	93 48	
		188,083 59
Increase in value of Investments by amortization of premiums		917 27
Overdraft, Dec. 31, 1934, Imperial Bank		4,560 19
		$1,263,843 98

PAYMENTS

To Claimants out of Deposits under Section 28		$330,819 62
Deposits returned to Employers under Section 28		1,565 12
To Claimants out of Claimants' Moneys		3,840 45
Paid out of Deposits under Section 32:		
For Compensation	$775,117 25	
Medical Aid	139,921 23	
		915,038 48
Deposits returned to Employers under Section 32		4,794 37
Increase in Book Value of Investments by Apportionment of Discounts on Debenture Purchases applicable to 1934 (See Contra)		7,785 94
		$1,263,843 98

Ontario Department of Agricultural

REPORT

OF THE

Ontario Veterinary College

1934

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 29, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

Report of the

Ontario Veterinary College

TO THE HONOURABLE DUNCAN MARSHALL,

Minister of Agriculture.

Sir,—

I have the honour to present herewith the following report of the Ontario Veterinary College for the year extending from November 1st, 1933, to October 31st, 1934.

COMMENCEMENT EXERCISES

The Annual Commencement Exercises were held on November 14th, 1933, in the Assembly Hall of the College. The speaker for the occasion was The Honourable and Rev. H. J. Cody, President of the University of Toronto. In the course of his address Dr. Cody traced the progress of veterinary education from the small privately owned institution established in Toronto during the year 1862. He stated that from its inception the College had rendered a nessary and extremely valuable service to the live stock industry, agriculture and allied interests in training highly qualified men to safeguard the health of farm animals by preventing and controlling animal plagues and in assisting to preserve public health by lessening the possibility of animal diseases being conveyed through unwholesome supplies of meat and milk products.

Recognizing that disease is still the greatest enemy to successful live stock development there should always remain a place for the qualified graduate in veterinary science to practice both the art and the science of his profession. During the further course of his address Dr. Cody enjoined the student body to maintain a proper balance between work and play. He emphasized the fact that essentially they came to college to study and work and to prepare themselves for their future sphere of usefulness in the community. In a brief reference to examinations he considered them as being part of college life to serve as a "spur to increased effort and to impart the virtue of humility." It should be the aim of the student to gain in knowledge, the accumulation of which meant wisdom and power. It was also desirable to keep the necessary balance between science and technique and to remember that knowledge was of little value without character and sincerity of purpose. It was likewise important to keep in mind that to achieve success the spirit in which one approaches work is important and to keep abreast of the times one should begin effectively to study and work from the beginning of their college life and continue it after graduation. In concluding his address Dr. Cody urged the students to cultivate friendships while at college and to go forward with noble impulse towards a high standard of attainment and to acquire high ideals of living and good citizenship.

At a Special Convocation of the University of Toronto held on May 3rd, 1934, the degree of Bachelor of Veterinary Science (B.V.Sc.) was conferred on 23 graduates by the Chancellor (Sir William Mulock).

Student Enrollment

The student enrolment has again shown a decided improvement over previous years. In my report of last year I expressed the view that so long as the present attendance was being maintained there was no pressing need for intensive efforts to increase the enrolment. While this policy has been adhered to during the past year nevertheless our attendance has shown a noticeable increase over last year. The registration for last year comprised a total of 150 students while the registration this year comprises 184 students being an increase of 34 students. The fact is we have now reached our total attendance capacity. This is especially so as far as laboratory accommodation is concerned. To provide for any larger attendance would entail additional staff and increased laboratory space. We are therefore faced with the possibility of either restricting our attendance in keeping with our present staff and existing facilities or else to provide for increased staff and enlarged laboratory accommodation. For the present at least I am inclined to favour a restricted attendance along constructive lines.

This may be approached progressively by lengthening the course from four to five years and by raising the standard of qualification. In other words our aim should be quality as well as quantity and so long as the attendance is being maintained at a desirable level it is the best policy to pursue. As in previous years, students are again in attendance from each of the Provinces of Canada, from Great Britain and other parts of the Empire, as well as from the United States.

Courses of Study and Instruction

Adjustments have been made during the current session whereby the courses in anatomy and surgery have been more closely correlated as well as the subjects of pharmacy, materia medica and therapeutics. The course in parasitology has been enlarged and allied more intimately with biology and zoology. The clinical facilities have also been considerably enlarged by the addition of a new commodious clinic room and hospital accommodation for small animals. With the increased attendance it has necessitated a division of the laboratory classes into two sections so that more individual attention could be given. This naturally has increased our class work but the results have been beneficial.

Adjustments in the course are a necessary development and have to be arranged to meet changing conditions as they arise. In this respect it would appear that it may soon be desirable to lengthen the course from four to five years duration. By so doing the standard of qualification would be progressively improved and placed on a standard approaching that of the other learned professions. The general trend in veterinary science now appears to be towards a four years professional course preceeded by a year of college work in which may be included such subjects as English literature, general chemistry, physics, botany, biology and zootechnics. It is generally recognized that a careful selection and grouping of certain subjects as the basis for a year of college work preceeding the professional course of four years has been productive of better results than the inclusion of such subjects as part of the regular professional training. By this plan the students acquires a better preparation for the technical or professional studies. This arrangement also provides for a more suitable schedule of studies in the different years and a better balanced time table throughout the course whereby lectures, clinical instruction and laboratory practice are more closely correlated.

During the month of June a short course and conference was held relating to the fur farming industry under the joint auspices of the college and the Ontario Silver Fox Breeders' Association and in cooperation with the staff of the Government Experimental Fur Farm at Kirkfield.

The course consisted of special lectures and demonstrations on the following subjects.

The diagnosis and control of infectious diseases.
Lung worm disease and its complications.
Anemia affecting mink.
Coccidiosis affecting mink.
Methods of pelting.
Classification and judging of fox and mink pelts.
Reproduction and fertility in foxes
Report on distemper research.
Discussion on feeds and feeding of foxes.
Discussion on the control of hookworms and roundworms.
The cause and control of rickets in foxes.

A special course was arranged for general practioners during the month of July with an average of sixty in attendance. The programme of instruction was arranged to meet the needs of those concerned along specific lines consisting of lectures, clinical and laboratory demonstrations on infectious, nutritional and parasitic diseases of animals as indicated in the following outline.

Diseases of Cattle — General review of Bang's disease, Johne's disease, Mammitis, White scours, Warble control.

Diseases of the Horse—General review of Encephalomyelitis, Forage poisoning, Bot control, Joint-ill in foals.

Diseases of Sheep—General review of Swine erysipelas, Hemorrhagic septicemia, Anaemia of young pigs.

Miscellaneous Topics — Milk Hygiene including pasteurization and the bacteriological examination of milk. Deficiency and metabolic diseases of animals, vaccination against distemper in dogs.

Research and Investigational Work

While the College is essentially an educational institution concerned primarily with the instruction and training of students, it has also undertaken considerable research and investigational work.

The requests for services of this kind receive the required attention as far as time and facilities will permit.

It is, however, not sufficiently realized sometimes that researches properly conducted and carried to completion involve a greater amount of time, extra staff and equipment than happens to be always available. As a result the scope and extent of this work has to be kept within the means at our disposal. In spite of these disadvantages we have maintained our usefulness to an exceptional degree in rendering efficient service in solving disease problems as they arise. The college staff have been kept exceedingly busy with routine work and the increasing requests for special investigations would seem to warrant an increase of the available resources under the direction of someone whose whole time could be devoted to the work in close co-operation with the college and other interested research organizations. It is highly important work with an unlimited field and the increased requests for our help indicates the confidence of the public in the services rendered.

The progress made and a description of some of the researches conducted this year are briefly outlined and detailed reports are submitted as appendices by members of the staff individually.

Johne's Disease of Cattle—Several cases of this disease were reported again this year. The insidious nature of this disease makes its detection very difficult until the symptoms become well marked. As a rule the first symptom to attract attention is a persistent diarrhoea with gradual loss of flesh in spite of good care and careful feeding. The disease is generally introduced into a clean herd by the purchase of an infected breeding female from an infected herd. If the animal happens to be pregnant at the time of purchase the symptoms may not become manifest until after calving time. As yet the disease seems to be confined chiefly to a few dairy herds. The diagnosis may be confirmed in suspected cases by a microscopic examination of scrapings from the rectum, or by the application of the johnin test or the avian tuberculin test or by a post-mortem examination. Several cases have been submitted to these methods of detection during the past year.

Swine Erysipelas—This disease is not of very common occurrence here as yet. It is however quite prevalent in many other countries and is said to be becoming more widespread in some parts of Western Canada. Several cases developed this year in a herd under our observation. The disease occurs in several forms or types one being mild in character and commonly known as diamond skin disease. This form of the disease develops as a form of urticaria characterized by the sudden appearance of rhomboid or diamond shaped, darkly reddened areas on the skin in different parts of the body. This is the type usually observed here as yet and as a rule it responds to treatment with recovery in about two weeks' time.

The other types are of a more serious nature and may occur either in an acute, subacute or chronic form. Acute cases are of a septicemic nature characterized by high temperature, extensive discoloration of the skin, discharge from the eyes, complete loss of appetite and definite illness accompanied by difficult breathing and heart weakness. This type of the disease runs a rapid course frequently terminating fatally in from 2 to 4 days' time. Fortunately this form of the disease is not common here as yet. Subacute or chronic cases are stated to be increasing among young pigs in some parts of Western Canada. In this form of the disease the chief symptoms are general arthritis or inflammation of the joints resembling rheumatism causing the affected pigs to become stiffened up and lame with enlarged joints accompanied by general unthriftiness and a considerable death rate. Generally speaking swine erysipelas has not as yet occurred to any great extent here in a severe form.

As a rule the disease is observed chiefly during the summer and fall months and abates with the advent of cold weather.

Young pigs under one year of age are the most frequently attacked. The detection of this disease is usually not difficult as the symptoms are quite characteristic. The diagnosis may also be confirmed by means of an agglutination or blood test with a suitable antigen.

Mild cases of the disease commonly known as "Diamond Skin Disease of Pigs" usually respond to medicinal treatment and recover in about 10 days' time.

Acute, subacute or chronic cases do not respond to ordinary medicinal treatment. Vaccination with immune serum may be used for the treatment of these cases with beneficial effects sometimes. In Europe where the disease is common vaccination by what is known as the simultaneous or double method is used as a preventive treatment to lessen outbreaks in affected districts.

Swamp Fever of Horses — Cases of Infectious Anemia of horses or so-called swamp fever are now being reported from time to time in different parts of the Province. It is a virus disease which has prevailed endemically for many years in certain districts in Western Canada and the United States. It has not been a common disease here but is believed to have been introduced by the shipment of western horses into different sections of Ontario.

While the exact cause and methods of transmission have not been fully determined it is at least known to be caused by a filterable virus present in the blood, urine and faeces of affected horses and the infection may be acquired from contaminated pastures, slough water and possibly also by the attacks of blood sucking biting flies.

Horses become naturally infected chiefly during the summer months while they are at pasture and drinking out of certain ponds or sloughs. The infection may be introduced into new districts by the movement of infected horses although the infection also appears to be a natural inhabitant of certain localities. During the past year an interesting outbreak of this disease occurred on a farm in Victoria County.

During the previous year the owner had purchased a pair of western horses and since then has lost all of its horses from swamp fever.

In order to determine if the infection has become established on the premises it was decided to procure a pair of healthy horses from near Guelph where the disease has never occurred and to place them on this farm for observation. They will be kept stabled during the winter months and turned out to pasture during the summer months by themselves awaiting developments.

The disease occurs in three forms described as acute, subacute and chronic swamp fever, depending on the severity of the attack and its duration. Irrespective of the form in which the disease appears it causes an exceedingly large mortality.

Acute cases are characterized by their sudden onset, high fever, marked weakness and prostration terminating fatally within a few days. These cases are chiefly observed during the summer months.

Subacute cases are manifested by symptoms of intermittent fever, weakness, loud beating of the heart and weak pulse, profound anemia with blanching of the visible membranes. As the disease advances marked weakness of the hind quarters develops with incoordination of movement accompanied by progressive emaciation in spite of the fact that the animal has retained its appetite. These cases may last from one to two months before death takes place and are most frequent during the late fall months.

Chronic cases are usually observed chiefly during the late fall and winter months and follow a slow course manifested by intermittent fever, palpitation of the heart, weak quivering pulse, profound anemia, polyuria, general weakness and emaciation in spite of an increased appetite in some cases.

Histology of the Endocrin System of Fowl—The endocrin system comprises certain glands of the body which have an internal secretion capable of being absorbed directly into the blood. These secretions are known to have an important influence on the normal functions of the body and in maintaining health. In order to better understand how the endocrin glands appear in health and how they function a knowledge of their minute cellular structure is desirable and to aid in the diagnosis of diseases resulting from them. The study of these glands was therefore undertaken to determine their exact location in fowl and to establish any marked histological differences as compared with the same structures in larger animals.

The Use of Azamine for the Treatment of Coccidiosis—Coccidiosis is a disease of animals caused by a parasitic invasion of the bowel producing a form of bloody dysentery. It attacks young cattle on certain pastures and when they are kept in contaminated stables. Coccidiosis also affects poultry and fur bearing animals, especially in the case of mink farms. This experiment was conducted for the purpose of determining the efficacy of the drug known as Azamine for the treatment of Coccidiosis in poultry and mink. The results of these preliminary experiments are sufficiently promising to warrant further research as to its value in the treatment of all animals subject to the disease.

Myiasis in Man and Animals—Myiasis is commonly known as fly maggot infestation and causes a severe skin eruption which is of more frequent occurrence in man and animals than is generally known. The disease has been observed affecting children and fur bearing animals in different parts of Ontario during recent years. This investigation relates to its incidence in children and in mink.

In children the disease is manifested by the development of boil-like eruptions on exposed parts of the body. Infection takes place during the summer months when flies are prevalent between the months of June and September. The flies deposit their maggots on the skin of the child which then burrow into the skin giving rise to painful boil-like lesions from which the maggots can be squeezed out. The same condition is also observed in young mink in captivity and causes severe losses. In this experiment the life cycle of the fly *Wohlfahrtia vigil* was studied for the purpose of determining the most suitable means for controlling this pest.

Report of an Outbreak of Malignant Catarrh—Severe outbreaks of Malignant Catarrh have fortunately not been of very common occurrence in Ontario

It is essentially a highly fatal infectious disease of cattle causing a severe inflammation of the tissues lining the air passages of the head and throat, accompanied by a nasal discharge together with inflammation of the eyes and nervous derangement, and in some cases inflammation of the stomach and intestines. In this outbreak the disease occurred in a herd of 28 cattle which were in good condition and kept stabled. The cattle had been on this farm for about four months when the disease appeared. Half the herd became affected within a short time resulting in the death of 11 cattle. This outbreak was notable in that the onset of the disease was sudden and occurred in both respiratory and intestinal forms.

Convulsions in Suckling Calves—The occurrence of convulsions in suckling calves was the subject of an investigation and an effort was made to determine the exact nature of the disease and its cause. Nothing of a definite character could be found as to the cause of the convulsions but it is hoped to renew the study of this disease as opportunity permits.

Public Extension Service

This service has been promoted to furnish specialized clinical and laboratory assistance in the diagnosis, prevention and operative treatment of diseases in all classes of animals. It has been developed along such lines of usefulness as seemed to be most effective and desirable to those requiring specialized services and to furnish clinical and laboratory material for teaching and demonstration purposes in class work. It thus serves a two-fold purpose and has also been made more or less self sustaining by making a nominal charge to cover any expense incurred where the service rendered is of an individual commercial nature. The nature and extent of the service rendered is briefly summarized as follows:

Animal Clinics—To these clinics animals of all kinds can be brought for special examination and operative treatment. They are held regularly on four afternoons of each week during the college session. The value and importance of these clinics to the community is clearly manifested by the large number of animals brought regularly for attention. During the year 1200 animals were selected for medical and operative treatment and the nature of the cases dealt with are summarized in the appended clinical report. It is readily apparent that a valuable medical and surgical service has been rendered to those in need of same.

Laboratory Examinations—The value of scientific laboratory examination is becoming increasingly important and in fact offers the only dependable means for the correct diagnosis of many diseases. During the year 1041 disease specimens were received for microscopic and bacteriological examination. Autopsies were made of 1806 poultry carcases belonging to individual owners reporting disease in their flocks. In each case a personal laboratory report of the results of the examination was sent to the one concerned with instructions as to the proper treatment and prevention of the disease in question.

Serological Tests — These are commonly known as blood tests and are becoming more widely used as the best method for diagnosing certain forms of disease. At the present time they are most frequently used for the diagnosis of Bang's disease in cattle (contagious abortion) and for pullorum disease (bacillary white diarrhoea) in fowl. For the diagnosis of Bang's disease 9,034 blood samples were received from veterinarians or their clients and submitted to the agglutination or blood test for *B. abortus* infection. Included in this number were 310 pure bred cows intended for export to the United States. In addition 6,850 doses of *B. abortus* antigen (test fluid) were supplied to graduate veterinarians for the testing of herds under their supervision. These tests were made cooperatively with qualified veterinarians for clients whose herds they were supervising, on the understanding that the reacting animals would not be sold to enter clean herds and that their disposal would be regulated as follows:

1. By segregation on the owner's premises pending their ultimate disposal.
2. Disposal by transferring them to positive herds on separate premises.
3. Disposal by slaughter ultimately at abattoirs under inspection.

Pullorum Antigen. Sufficient of the pullorum antigen (test fluid) was prepared and supplied to graduate veterinarians to make over 48,000 poultry blood tests for their clients.

Fowl Pox Vaccine. At the request of the poultry department 60,000 doses of fowl pox vaccine were prepared and supplied to poultry breeding stations under their control. The details of these different services are included in the appended reports of the departments concerned.

The increasing demand for these extension services creates a large amount of detailed routine work of a skilful nature, with an immense volume of correspondence, personal interviews for advice, and the preparation of test charts and laboratory reports covering the work. Throughout the year the entire staff has been kept busily engaged and each one has performed his work in a painstaking and diligent manner. A high standard of efficiency is being maintained in all departments and at a minimum cost to the province.

All of which is respectfully submitted.

C. D. McGILVRAY,
Principal.

Guelph, Ontario,
October 31st, 1934.

CLINICAL DEPARTMENT

The work of this department embraces the applied branches of veterinary medicine and surgery. All animals brought to the clinics are carefully examined, after which treatment is prescribed and operations performed as may be required. The cases are carefully selected and made use of to impart instruction to the students by means of lectures and special demonstrations. A list of the clinical cases relating to the different classes of animals are recorded under their respective headings, and a number of interesting conditions are embodied as special articles in the report.

HORSE CLINICS

Number of Animals	Nature of Case	Remarks
35	Dental Cases	
7	Elongated Molars	Molar-cutting operation
5	Caried Molars	Extraction
6	Fractured Molars	"
3	Diseased Molars	Trephination and propulsion
2	Supernumerary Molars	Extraction
2	Pyo-sinusitis	Trephining operation
18	Dental Irregularities	Floating and dressing
1	Alveolar Sarcoma	
1	Prognathism	
2	Fracture of the Nasal Bones	
1	Tumifaction—Nasal Septum	
50	Lameness	
10	Tarsitis and Spavin	Counter irritation
4	Navicular Arthritis	" "
2	Stringhalt	Operative treatment
4	Gonitis	Counter irritation
1	Curb	" "
2	Splints	" "
2	Tendonitis	" "
1	Suspensory Ligament	
2	Osselets	Counter irritation
5	Ringbone	" "
1	Check Ligament	" "
3	Laminitis Chronic	" "
3	Sidebone	" "
1	Coronitis	" "
2	Distension Carpal Sheath	Aspiration
2	Carpitis	Counter irritation
1	Rupture of Suspensory Ligament	
1	Volar Flexion	
1	Fracture of the Os Pedes	
6	Scratches	Topical applications
3	Thrush	Antiseptic astringents
1	Verrucose Dermatitis (Grease)	
2	Leg Mange (Symbiotic)	Parasiticidal applications
2	Canker of the Foot	Antiseptic astringents
3	Bruised Heels and Soles	Paring and shoeing
14	Wounds, Injuries and Abscesses	
1	Hock Wound	Antiseptic treatment
1	Pectoral Wound	" "
1	Shoulder Wound	" "
1	Costal Abscess	Surgical and antiseptic treatment
2	Shoeboil	" " " "
2	Shoulder Abscess	" " " "
1	Carpal Hygroma	" " " "
4	Serous Effusion (Withers)	" " " "
22	Fistulas and Tumours	" " " "
1	Sternal Fistula	" " " "
8	Wither Fistulas	" " " "
1	Submaxillary Fistula	" " " "
2	Granuloma	" " " "
3	Malignant Tumours	

HORSE CLINICS—*Continued*

Number of Animals	Nature of Case	Remarks
3	Poll Evil	Surgical and antiseptic treatment
1	Tumifaction of Withers	Counter irritation
2	Shoulder Tumour	Surgical treatment
33	Operative Cases	
8	Cryptorchidism	Surgical operation
7	Castrations	" "
4	Scrotal Hernia	" "
1	Nymphomania	" "
2	Umbilical Hernia	" "
11	Laryngeal Hemiplegia	" "
20	Influenza	Hygienic and medicinal treatment
11	Periodic Ophthalmia	Medicinal treatment
3	Pulmonary Emphysema	Hygenic and medicinal treatment
1	Hepatitis	Medicinal treatment
13	Colics (Impaction and Indigestion)	" "
1	Ringworm	Antiseptic applications
1	Mammitis	Medicinal treatment
1	Tetanus	Medicinal and biological treatment
2	Diarrhoea (New Born)	" treatment
1	Dystokia	Manual handling
3	Retained Placenta	" "
1	Prolapse Uterus	" "
2	Sterility	" treatment
1	Bronchocele	" application
1	Chorea	
1	Brain Lesion	
2	Parasitism	Parasiticidal treatment
	Examination for Soundness	Student Exercises
	" Clinical	" "
	Local and Regional Anaesthesia	" "
	Point and Line Firing	" "
	Inguinal Exploration	" "
	Bandaging Technique	" "
	Tenotomy "	" "
	Neurectomy "	" "
	Post Mortem "	" "
	Surgical Landmarks	" "
	Administration of Medicines	" "
	Restraint	" "

CATTLE CLINICS

38	Sterility	Manual and antiseptic treatment
2	Purulent Vaginitis	" " " "
3	Pyometra	" " " "
1	Mummification	Artificial expulsion
5	Dystokia	Manual handling
3	Retained Placenta	Manual and antiseptic treatment
4	Nymphomania	Ovarian manipulation
3	Impotency in Males	Seminal examination
3	Mammitis	Medicinal treatment
1	Precocious Milk Secretion	
1	Udder Tumour	Surgical removal
6	Teat Tumours and Obstructions	" treatment
2	Teat Fistula and Laceration	" "
1	Vaginal Tumour	" removal
1	Vaginal Cyst	" "
3	Parturient Paresis	Intravenous medication
3	Castration	Surgical operation
3	Supernumerary Teats	" excision
2	Facial Abscess	" treatment
1	Intermandibular Abscess	Surgical treatment
3	Hoof Infection	" and antiseptic treatment

CATTLE CLINICS—*Continued*

Number of Animals	Nature of Case	Remarks
1	Tarsal Abscess	" treatment
2	Fractured Horn	Dehorning operation
1	Ankylosis Phalangeal	Topical application
3	Indigestion	Medicinal treatment
3	Pneumonia	" "
2	Keratitis	" application
1	Conjunctivitis	" "
1	Tumour (Lipoma)	Surgical removal
7	Tumour (Actinomycotic)	" "
1	Tarsitis	Counter irritation
1	Injury—Tuber Coxae	Surgical and antiseptic treatment
1	" Patellar	" " " "
1	" Carpal	" " " "
1	Contracted Tendons (Congenital)	" treatment
Herd	White Scours	Medicinal "
"	Blackleg Inoculation	Preventive medicine
"	Johne's Disease	Diagnostic inoculation
"	Tuberculosis	" "
1	Meningitis	Infectious process
1	Congenital Malformation	Ileocecal opening atretic
3	White Scours	Gastro-enteritis
1	Embolic Cerebral Abscess	Secondary to hepatic abscesses
1	Generalized Peritonitis	Infection
1	Septicemia	"
	Restraint Technique	Student Exercises
	Clinical Examination	" "
	Administration of Medicine	" "
	International Inspection	" "
	Intraspinal Injections	" "
	Sterility Technique	" "
	Bleeding for Agglutination	" "
	Phlebotomy	" "

SWINE CLINICS

1 Lot	Rhinitis Infection	Treatment advised
5 Lots	Hemorrhagic Septicemia	" "
1 Lot	Suipestifer Infection	" "
1 Lot	Swine Erysipelas	" supervised
2 Lots	Gastro-enteritis	" advised
2 Lots	Nutritional Disturbance	" "
3	Necrotic Stomatitis	Surgical and antiseptic treatment
1	Chronic Indigestion	Medicinal treatment
1	Heat Prostration	Treatment supervised
1	Rheumatic Arthritis	Medicinal and hygienic treatment
15	Cryptorchidism	Surgical operation
8	Scrotal Hernia	" "
12	Castration	" "
1	Umbilical Hernia	" "
2	Hermaphrodism	" "
	Post Mortem Examinations	Findings
3	Hemorrhagic Septicemia	Suisepticus infection
6	Anemia (Suckling Pigs)	Hemoglobin low
3	Nutritional Deficiency	Rachitic lesions
1	Verminous Pneumonia	Lung worm infestation
3	Gastro-enteritis	Inflammatory lesions
1	Necrotic Enteritis	Suipestifer infection

SHEEP CLINCS

Number of Animals	Nature of Case	Remarks
4	Pregnancy Disease	Medicinal treatment
2	Deficiency "	Dietetic measures
2	Pneumonia and Pleuritis	Medicinal treatment
3	Dermatitis	Topical applications
1	Cellulitis (Sheath)	Antiseptic treatment
1	Laryngeal Stenosis	
1	Tetanus	
2	Dystokia	Manual handling
1	Mammary Abscess	Surgical and antiseptic treatment
1	Injury to Genitals	" " " "
2	Prolapse of the Vagina	" treatment
1	Dental Case	Extraction
6	Caudal Amputation	Surgical operation
	Porst Mortem Examinations	Findings
3	Pregnancy Disease	Degenerate liver and kidneys
2	Deficiency "	Anemia and cachexia
1	Pneumonia	Hepatization of lungs
2	Hemorrhagic Septicemia	Petechial hemorrhages; pneumonia
1	Laryngeal Stenosis	Contraction of the larynx

SMALL ANIMAL CLINICS—DOGS

Number of Animals	Nature of Case	Remarks
68	Ovariectomy	Surgical operation
4	Dystokia	Caesarian section
2	Sterility	Exploratory operation
2	Vaginal Prolapse	Surgical treatment
3	Umbilical Hernia	" operation
2	Unguinal Hernia	" "
1	Vegetative Cystitis	Antiseptic treatment
1	Gastro Hysterectomy	Surgical operation
1	Anal Atresia	" treatment
4	Anal Pouch Infection	Antiseptic "
1	Buccal Cyst	Surgical ablation
1	Ulcerative Stomatitis	Antiseptic treatment
2	Cleft Palate (Congenital)	
3	Gastritis	Medicinal treatment
4	Dietetic Error	Correct feeding
1	Hepatitis	
1	Ascites (Abdominal)	Paracentesis abdominis
2	Constipation	Cathartics and enemas
1	Facial Abscess	Surgical and antiseptic treatment
1	Submaxillary Abscess	" " " "
1	Mandibular Abscess	" " " "
2	Parotid Abscess	" " " "
1	Enteritis	Medicinal treatment
1	Pharyngeal Obstruction	Operative removal
2	Infected Teeth	Extraction
3	Dental Caries	Extraction and antiseptics
2	Infected Ear	Antiseptic treatment
5	Taeniasis	Taeniacides
6	Ascariasis	Vermicides
3	Distemper	Medicinal and biological treatment
2	Chorea	Alteratives
4	Rachitis	Antirachitic diet and treatment
6	Eczema	Astringent applications
3	Goitre	Iodine applications
2	Paraplegia	Stimulative treatment
1	Tarsitis	Liniment
3	Supernumerary Claws	Surgical removal
4	Caudal Amputation	" operation
3	Toe Nail Trimming	" "
1	Interdigital Fibroma	Surgical operation
2	Conjuctival Tumours	" "

SMALL ANIMAL CLINICS—DOGS—*Continued*

Number of Animals	Nature of Case	Remarks
1	Capped Hock (Hygroma)	Medicinal application
1	Caput Atrophy	
1	Thydroidectomy	Surgical operation
1	Fractured Tibia	" dressing
1	Caudal Tumour	" removal
1	Cervical Tumour	" "
1	Fractured Tarsus	
1	Granulomatous Tumour	Surgical removal
2	Cataracts	
3	Corneal Opacity	Topical applications
3	Demodectic Mange	Parasiticidal treatment
2	Sarcoptic Mange	" "
5	Injured by Automobiles	Emergency treatment
3	Castration	Surgical operation
	Post Mortem Examinations	Findings
2	Automobile Injury	Internal hemorrhage
1	Heart Disease	Hypertrophy
1	Acute Indigestion	Overloaded stomach and gastritis
2	Peritonitis	Infection

SMALL ANIMAL CLINICS—CATS

15	Ovariectomy	Surgical operation
8	Castration	" "
3	Otodectic Mange	Parasiticidal treatment
1	Facial Abscess	Surgical and antiseptic treatment
2	Infected Ears	Antiseptic treatment
1	Skin Disease (Eczema)	Topical application
2	Taeniasis	Taeniacidal treatment
1	Inappetance	Digestive tonics
2	Gastro-enteritis	Medicinal treatment
1	Diarrhoea	" "
1	Pneumonia	" "
1	Coccidiosis	" "
1	Costal Wound	Antiseptic "
1	Tumour (Eyelid)	Surgical removal
1	Injury by Automobile	Emergency treatment

DEPARTMENT OF ZOOLOGY

The object of this department is to provide a course of lectures and dissections which will give the student a working knowledge of the subject, especially in its application to veterinary parasitology. The course has been extended during the past two years so that now there is time allowed for practical laboratory work and drawings. The instruction is given to the first-year students with the idea and hope that the knowledge will be a valuable adjunct to their understanding of veterinary science. Owing to the large increase in numbers of students in the first year this class has been divided into two sections A and B. This arrangement gives opportunity for more individual attention during laboratory hours.

DEPARTMENT OF EMBRYOLOGY AND HISTOLOGY

As in previous years the course of instruction in embryology and histology is given to first and second year students, the idea being to prepare the student for such important subjects as physiology, biochemistry and pathology. The subject of histology is well covered. All the important body tissues and organs are examined and studied by means of prepared sections and descriptive lectures. The student is required to make careful and accurate drawings. Due to the marked increase in the number of students there was need for an incrased number of sections and in order to meet this need over one thousand new and additional slides were prepared.

MEAT INSPECTION

This course is delivered to students of the senior year and consists of lectures and demonstrations. It is conducted with the view of giving the graduate who enters general practice a comprehensive knowledge of the subject and also to prepare students for entry to the Federal Service under the Health of Animals Branch. Arrangements have been made whereby the senior students are now given the opportunity of visiting a Federal inspected abattoir. The class is divided into sections and two visits per week are made.

DEPARTMENT OF APPLIED PATHOLOGY

The routine work of this department has been carried on in much the same manner as in previous years and consists of examination of specimens of blood, tissue, organs, and lesions from animals dead of some condition or disease which the owner or some other interested person does not understand. Sometimes whole carcases or still living animals are sent to the laboratory. In all these cases various tests are carried out and often tissue is examined by micrscope. In the case of parasitic invasion the parasite is identified and classified according to its species. A report of the findings is then forwarded to the person inquiring together with suggestions as to control and prevention of the trouble. Often the stock owner is advised to consult his local veterinarian. The resources of the department are at the disposal of veterinary practitioners, and it is gratifying to know that practitioners are taking advantage of this fact in increasing numbers. Over nine hundred reports as to findings were mailed to owners and veterinarians during the past year. Because of the increase of students in the junior years there was need of a larger number of specimen sections required. These were prepared and our sets of diseased tissue were brought up to the required number. In many cases old sets were discarded, new and better ones being prepared.

Nature of Case	Cattle	Sheep	Horses	Swine	Dogs	Cats	Rabbits	Fowl	Fox	Mink	Ferret	Total
Tuberculosis	3							1				4
Neoplasms	3		5	3	15	1		3				30
Pneumonia	11	5	11			2	1		5	3		38
Parasites	250	7	6	5	11	5	3	3	14	186		490
Enteritis	9	2	3	13	2	1			8	4		42
Abscess	4		1	3					1		1	10
Peritonitis	1		1	1		2			2			7
Nephritis	1		1	2	2	1			2			9
Tissue from Operations	4		12	3	10				2			7
Hemorrhagic Septicemia	5	4		12								21
Gastritis	1		1	10	3	1			6			22
Food Poison	2		3			1			6	3		15
Abortion	3											3
Anemia				3						2		5
Pericarditis	3			3								6
Mastitis	40		1									41
Red Water	8											8
Swamp Fever			4									4
Hepatitis	4	1	3	1	1			2	2	4		18
Actinomycosis	4											4
Examination of Pus	2		6	1								9
Meat Inspection	10	2		6								18
Miscellaneous	24		11	4	4				7	59		109
Total	392	21	69	70	48	14	4	9	53	261	1	942

DEPARTMENT OF PARASITOLOGY

The work of this Department is summarized under the following headings:—

Tutorial—The regular course in parasitology has been given to second and third year students. Third year classes have received laboratory instruction in general pathology, and assistance has been given in lecturing and demonstrating to classes taking the usual courses in histology, embryology and zoology. It has been possible to give more practical work in applied parasitology as a constant effort is being made to collect parasites and parasitised organs and animals for demonstration purposes.

Routine—Under this heading the work has been conducted in collaboration with the Department of Pathology. It has consisted of the examination of parasitized and diseased material, the making of post-mortem examinations, and the preparation of slides and museum specimens for class instruction. Such work has greatly increased during the past year not only on account of the larger number of students attending the college, but due to more material being received from outside sources.

Research—Three subjects, in connection with parasitology, deserve special mention. One is the report of two cases of infection with the Giant Kidney Worm (*Dioctophyme renalis*). This parasite may cause fatal infection in a variety of animals. In one case the male and female occurred erratically in the abdominal cavity of a dog and caused purulent peritonitis from which the animal died. The second case was the presence of a single male in the thoracic cavity of a dog. Separate reports are made upon the use of azamine in the control of coccidiosis and in connection with the prevalence and parasitism of the Sarcophagid fly, *Wohlfahrtia vigil* (Walker).

MILK HYGIENE, POULTRY DISEASES AND SEROLOGY

During the year ending October 31st, 1934, the work conducted may be summarized under the following headings:

Teaching—A course of lectures and practical work in milk hygiene was given to the fourth-year class. This course included visits to dairies and dairy farms and the bacteriological and chemical examination of samples of milk submitted for analysis. A course of lectures in poultry diseases was also given to the fourth-year class, and owing to the ample material received it was possible to make this course a practical one by having the students conduct ante-mortem and post-mortem examinations and make bacteriological examinations where necessary. Certain phases of the course were studied on up-to-date poultry farms. Assistance was also given in instruction in laboratory bacteriology to the third- and fourth-year classes.

Preparation of Biological Products—Forty-eight thousand test doses of *S. pullorum* antigen, and positive and negative control sera were distributed to veterinarians for the agglutination test for *S. pullorum* infection. Six thousand, eight hundred and fifty test doses of *Br. abortus antigen* were also sent out for use by veterinary surgeons. Sixty thousand doses of fowl-pox vaccine were prepared for use in the control of fowl-pox in the Breeding Stations under the supervision of the Department of Agriculture of Ontario. It is gratifying to note that each year more veterinarians are qualifying themselves to conduct the agglutination test for *S. pullorum* and *Br. abortus* infection. In addition to the instruction offered at the usual conferences at the College, instruction in performing these tests has also been given at other times by appointment.

Routine Examination of Specimens—This work is increasing enormously and occupies the major part of the time. It consists of the routine examination of samples of cattle blood, and the bacteriological or such other examination as required of other specimens.

BLOOD SERUM EXAMINATIONS

Animal	Disease	Number of Samples Received	Positive	Doubtful	Negative	Unfit for Testing
Cattle	Infectious abortion..	9,034	1,740	464	6,676	154

SYNOPSIS OF EXAMINATIONS IN CONNECTION WITH POULTRY DISEASES

From November 1st, 1933, to October 31st, 1934.

Condition or Disease	Nov.	Dec.	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Total
Adult Pullorum Infection	4	2	8	4	11	8	12	2	1	4	6	11	73
Ascites					1			3				1	5
Avian Diphtheria	3	5	5				2				2	2	19
Coccidiosis	3		2	1	3	1	9	46	76	39	29	66	275
Colds and Roup	4	2	1	2		2	2	4			5	5	27
Enterohepatitis (turkeys)	1	3		3			3	1	3	1		4	19
" (chicken)							1	7	6	2	1		17
Fowl Cholera	11	1	3			2	2	3	1	5	9	2	39
Aspergillosis							2						2
Laryngotracheitis			3	5	1		1	1		4	1	3	19
Leucosis	7	8	10	3	1	1		1		1	2	7	41
Pneumonia			1	1								1	3
Pullorum Disease of Chicks	1			5	40	187	151	44	10		3		441
Tuberculosis	4	2	4	2	9	5	6	4	1	1	1	2	41
Other Infections	2		3	3		1		3	1			5	18
Volvulus					1							1	2
Transient Paralysis			1	2	3								6
Egg Bound and Yolk Concretions	5	4		1	4	4	2			3	6	4	33
Enteritis	5	7	10	3	3	3	7	1	3	1		2	45
External Parasites	1					1	1						3
Fatty Degeneration and Infiltration			2		1								3
Impaction of Crop	1		1		1	1		1				1	6
Injuries					1	2		1	1	1		3	9
Nutritional Ailments	2	4	9		15	2	41	20	27	29	3	7	159
Prolapse				1					1				2
Ruptured Liver	1		1	1	2				1				6
Ruptured Oviduct					1			1					2
Tumours	1	5	6	6	3	4	1	1		3	3	2	35
Visceral Gout	1	1	2					1		2	1	8	16
Worms (round)	6	5	13	1	8	3	5	3	3	6	6	9	68
" (tape)	21	14	18	4	16	9	5	4	5	3	12	21	132
" (round and tape)	8	2	5	3		5	2	5	2			5	37
Septicemia (geese and ducks)	1		1	1		1	1		2			1	8
E. necatrix Infection	1	1					1						3
Putrid and not diagnosed	2	6	2	6	23	28	59	39	11	7	3	6	192
Totals	96	72	111	58	148	270	316	196	155	112	93	179	1806

MISCELLANEOUS EXAMINATION

Milk and Cream	73
Water	8
Blood	5
Placenta of Cow	1
Calves	7
Samples of Feed	2
Sample of Pus	1
Pig	1
Dog	1
Total	99

DEPARTMENT OF BACTERIOLOGY AND PATHOLOGY

The work carried on in this department may be conveniently considered under the following headings: Tutorial, Routine, Research, and Investigatory.

Tutorial—In both lectures and laboratory work the fundamental facts of the sciences being studied by the student are, as far as possible, presented in a manner which makes them something more than data to be memorized and stored in isolation until the day of examination and then forgotten. The methods employed in teaching have as their objective the awakening and development of the mind, more than the memory, and the unification and synthesis of the knowledge acquired rather than the unprofitable accumulation of isolated facts.

Routine—The routine work of the laboratory consists chiefly in the diagnosis of diseased tissues and the making of post-mortem examinations. Such examinations frequently necessitate the application of varied and extensive bacteriological technique and also animal inoculation.

Research and Investigatory—Most of the work of this nature which has been undertaken during the year is described in special articles submitted under the following titles: Report of an Outbreak of Malignant Catarrh; Convulsions in Suckling Calves; Report of a Serious Outbreak among Swine due to the *S. suipestifer*.

REPORT OF AN OUTBREAK OF MALIGNANT CATRRH

By Frank W. Schofield

The purpose of this report is to record data pertaining to a serious disease of cattle which as far as is known occurs only at rare intervals in this Province, namely, malignant catarrh. This disease was first reported in the Province of Ontario by the writer in 1924 and is included in the Annual Report of the College for that year.

On this occasion the disease appeared on a farm where some twenty-eight head of cattle were being wintered. These cattle had been collected from three farms within a radius of ten miles of the barn in which they were being stabled. The cattle had been together for about four months before the first case of malignant catarrh developed. All of the animals were in first class condition.

Mortality—The disease was highly fatal, the mortality being over 90%, one only of the twelve animals affected recovering. Age seemed to make little difference to susceptibility. The youngest animal to be affected was a six months' old calf, and the oldest a six year old cow. The course of the disease was in most cases very rapid, death occurring in from four to five days. In two cases the animals died within forty-eight hours after the onset, while in one chronic case the affected animal lived for a month.

Incubation Period—This was impossible to decide, but there is evidence to show that it may be as long as seventeen days. This was determined by the fact that a fatal case developed in a cow seventeen days after she had been removed by the owner from the infected stable back to his own farm. There was no possibility of contact with infection during this period of time. It is significant to note that this cow had a temperature of 103.5 at the time of her removal, but showed no other signs of infection.

Mode of Dissemination—The disease is most likely spread by direct and indirect contact with the infected nasal and intestinal discharges, which in most of the affected animals were profuse. It is of interest to note that the cases were distributed irregularly throughout the stable. No two cases occurred in the same stall.

Symptoms—In this outbreak the disease might be described as occurring in two forms, viz., the respiratory and the intestinal, as in several cases there was no evidence of the usual inflammation of the head and respiratory organs. In all cases the onset of the disease was sudden. There was marked toxaemia, the pulse was rapid, the breathing accelerated and the temperature elevated. The temperature may remain as high as 106°—107° till shortly before death. Persistent muscular twitching over the regions of the shoulder and flank was observed in most cases. There was marked anorexia and a rapid falling off in flesh. A nasal discharge was present in only five out of the twelve cases. This was at first watery but soon became purulent and foetid. In several instances the inflammation spread to the eye, causing conjunctivitis and corneal opacity. Six of the affected animals showed a severe diarrhoea, with the frequent presence of blood clots as large as pigeons' eggs being passed. One of this number was also affected with head catarrh. Two yearling heifers showed neither respiratory nor intestinal infection, but continuous muscular twitching, almost complete anorexia with rapid loss of weight, and died in seven days. Two cases are of special interest and will be briefly reported on separately.

Case No. 1—A six year old cow showing slight nasal discharge, but corneal opacity, affecting first one eye and then the other, with final clearing of both eyes. Diarrhoea was absent and the temperature never rose above 103.6. The appetite was poor and loss of flesh marked. She was ill for one month and made a slow but complete recovery.

Case No. 2—This animal was sick for a period of one month with persistent nasal discharge, and occasional attacks of diarrhoea. For several days at a time there would be marked improvement but always followed by a relapse. The temperature was constantly elevated. Muscular tremors were absent. During the last few days diarrhoea was constantly present, the cornea of both eyes became turbid and she became greatly emaciated before death.

Post-mortem Findings—Three post-mortems were made by Dr. Wood. The conditions found varied according to the type of infection. In the intestinal form, the mucous membrane showed a haemorrhagic enteritis, with swollen and congested mesenteric lymph glands. The peritoneal cavity usually contained a blood stained inflammatory exudate. The spleen was normal. The liver showed pale areas, presumably of degeneration. The kidneys appeared dark and inflamed. In one case the vagina, and vulva were acutely inflamed.

In the respiratory form, there was an acute inflammation of the upper air passages with congestion of the lungs in some cases, but in no case was there any evidence of pneumonia.

Differential Diagnosis—This is of importance as the disease is easily confused with haemorrhagic septicemia. The outstanding differential features of malignant catarrh are the foetid and purulent nasal discharge; the inflammation of the eye, with corneal opacity; the frequence and persistence of the muscular tremors; the absence of "cough" which is usually present in an outbreak of haemorrhagic septicemia; the absence of pneumonia; the scarcity or absence of haemorrhages either in the subcutaneous tissue or the serous membranes. Mention might also be made of the fact that even large quantities of anti-haemorrhagic septicemia serum have no effect on the course of the disease.

Bacteriological Findings—The trachea and lungs from one case only were forwarded to the college for examination. Cultures both aerobic and anaerobic were made on blood agar, but no organisms of significance were isolated. Saline washings from the bronchii were made and injected subcutaneously into both a rabbit and a guinea pig. In both of these animals an abscess containing a caseous mass formed at the site of inocultion. The pus had a characteristic foetid odor. A Gram's stain of the pus showed the presence of large numbers of faintly staining Gram negative rods which were markedly pleo-morphic. The organism varied greatly in size from a small coccus form to elongated and slightly curved filaments many microns in length. Aerobic and anaerobic cultures were made from this necrotic material on both blood and serum agar. The aerobic cultures were negative, while the anaerobic cultures on the serum agar gave an excellent growth of an organism morphologically indistinguishable from that present in the pus. The growth was very poor on the blood agar. An interesting feature of the growth which was characteristic of the organism on this and many subsequent occasions was its failure to grow on any but the first tube dilution, where the growth was luxurious. It might also be mentioned that subcultures were rarely obtained, which necessitated the maintenance of the organism by animal passage. It would appear that some substance present in the dead tissue is essential for growth.

The morphological and growth characteristics of this organism, as well as the typical necrotic lesions produced in the rabbit would indicate that it is closely related to, if not identical with, the Actinomyces necrophorous.

A similar organism was isolated from the trachea in the outbreak of malignant catarrh, the report of which has already been mentioned in this paper.

Animal Experiments—A heifer and a cow were used in this experiment. Both were given about 10 c.c. intra-tracheally of a heavy suspension of necrotic tissue in normal saline. The mucous membrane of the nasal passages was also rubbed lightly with a swab soaked in the same material. (The necrotic material was obtained from an abscess experimentally produced in a rabbit.) These animals were kept under observation for a period of one month and during this time they remained perfectly healthy.

No etiological relationship has been demonstrated between the organism Actinomyces necrophorous and the disease malignant catarrh of cattle.

In this outbreak as well as in the previous one investigated there was no evidence that a "virulent colon bacillus," so frequently reported as related to this disease, had any etiological relationship to the infection.

Note—The writer wishes to acknowledge his indebtedness to Dr. W. I. Wood, Ilderton, Ontario, for the case histories and other clinical data submitted in this report.

CONVULSIONS IN SUCKLING CALVES

By Frank W. Schofield, D.V.Sc.

This condition is briefly reported on for the purpose of drawing attention to a highly fatal disease of young calves which is apparently widely distributed within the Province. No investigation has been made into the disease and we have nothing definite to offer as to etiology or treatment.

The disease, as far as our information goes, is limited to nursing calves. There is no indication in such cases that the dams have been suffering from any form of disease. In the last two outbreaks reported mal-nutrition or deficiency disease in the dams could be definitely excluded.

Symptoms—The affected animals are usually in perfectly good health, when suddenly they begin to bellow, run blindly around the pen, then falling over suffer from severe convulsions. Death may occur within ten or fifteen minutes after the onset of the attack, or the calf may recover from the convulsions and remain lying in an exhausted condition for some time. The disease usually terminates fatally in convulsions. Grinding of the teeth is common, but there is no definite evidence of abdominal pain. By some veterinarians the condition is believed to be the result of acute indigestion.

Post-mortem Findings—In four of the five cases examined the head alone was available for examination the remainder of the carcass not having been sent to the laboratory. In two of these cases there was a well marked congestion of the Schneiderian mucous membrane and the sub-maxillary and retero-pharyngeal lymphatic glands were congested and oedematous. In the remaining cases neither the mucous membrane nor the lymphatic glands were markedly affected. In one case slight oedema of the glands was present. In all cases there was definite evidence of cerebral congestion, but no haemorrhages were observed.

In one instance in which the stomach contents were forwarded together with the head, examination showed the latter to be quite putrid. A calf suffering from a mild form of the disease which was brought to the college for observation passed feces possessed of a very offensive odor. There is therefore some evidence indicative of gastro-intestinal disturbance.

Pathological Histology—Sections made from the cerebral cortex, the base of the brain and the medulla oblongata, did not show any evidence of infection. The capillaries were congested, but no cellular infiltration was present, neither was there any oedema. No statement can be made with regard to changes in the nerve cells as the brain tissue was in no case fresh enough to give significance to the cellular changes observed.

Is the Disease Contagious? This question which is usually asked cannot be answered at the present time. On one farm the disease has occurred twice during the last three years. In the first outbreak five calves were lost, and in the last, four. These animals all died within ten days. Both outbreaks have occurred in the same barn, and in the same pens in that barn. The disease has never occurred in three other barns located on the same premises.

In another instance where a farmer lost three calves, all died during the same month. Against the infectious nature of the disease is the fact of the suddenness of the onset and the rapid and fatal termination, usually within a few hours.

In two cases the *Pasteurella boviseptica* was isolated from the nasal mucosa, in one case in almost pure culture. As previously stated no evidence of infection was observed in the brain or meninges.

Experiment—Only one experiment has been made, that of inoculating four guinea pigs intra-nasally with a brain emulsion from a typical case. At the end of one month all of the pigs appeared quite normal.

The possibility of a mineral deficiency has been considered. The absence of any indications of rickets would preclude the possibility of acute calcium deficiency in these cases. No estimates have been made to determine the blood magnesium, a deficiency of which is known to be responsible for "grass tetany." It is quite apparent from the scanty data collected in this brief report that at present little of significance is at present known in regard to this disease.

REPORT OF A SERIOUS OUTBREAK AMONG SWINE DUE TO THE *S. SUIPESTIFER.*

By Frank W. Schofield, D.V.Sc.

The outbreak occurred in a large piggery where several hundred pigs were being fed for the market. No garbage was being used, and the sanitary conditions were good, but there was overcrowding. About four hundred pigs became infected, of which number, seventy-five died. It is of interest to note that almost all of the cases occurred in pigs which were about three months old. This, it will be noticed, is under the "hog-cholera age," and within the age of susceptibility to *Salmonella suipestifer.*

Although no test was made to determine whether or not the virus of hog cholera was present, this disease can be excluded on epizootological grounds, the outbreak having occurred in a district which has been entirely free from hog cholera for many years. A government inspector, after two visits and careful examination of the sick pigs, pronounced the disease as "not hog cholera."

Furthermore, although no special precautions were taken, the disease did not spread to the older pigs in the piggery, neither did it spread to piggeries in the immediate vicinity.

Post Mortem—Two pigs only were brought to the college for examination. The veterinarian, Dr. Nurse, stated that these were typical of the acute cases.

The skin of the abdomen, thighs, vagina and ears was dark blue in color. Small subcutaneous haemorrhages could be seen in the ears. The body lymph glands were oedematous and congested. The lungs were acutely inflamed and showed innumerable petechial haemorrhages. The mediastinal lymph glands were haemorrhagic. The trachea contained a bloody frothy exudate. Acute gastritis and enteritis was present. In one case the spleen was enlarged and friable, and the kidneys showed numerous petechial haemorrhages. No haemorrhages were present in the bladder.

Bacteriological Findings—Heavy and practically pure cultures of the *Suipestifer* were obtained from the spleen, heart's blood, lung, and subcutaneous tissue of the ear.

Discussion—There are two features of special interest in connection with the outbreak. (a) The presence of numerous petechial haemorrhages in the kidney. While these were not the small punctate kind found in hog cholera, yet in our experience the presence of haemorrhages in the kidney is rare, even in acute diseases of swine. (b) Although many pigs, which have died from acute general infections, are sent to the college for examination, this was the first occasion in which the *S. suipestifer* has been found as the cause of an acute septicaemia among pigs.

SWINE ERYSIPELAS

By R. A. McIntosh, B.V.Sc.

This disease is widespread in continental Europe and, like many other maladies of an infectious nature, has made its appearance in the United States and Canada. In European countries it is condition of great concern to those engaged in swine husbandry, for quite frequently it is responsible for severe losses in these animals. In recent years veterinarians in America have also recognized an increase in the prevalency of the disease and it would be wise for all those concerned in the control of infectious diseases to be watchful regarding it.

Unfortunately some forms of the disease are exceedingly difficult to differentiate from other septicemic diseases such as hemorrhagic septicemia and hog cholera. In Canada hog cholera is relatively rare and for the greater part may be ruled out, but in those countries where it and other septicemic diseases exist the possibility of an error in clinical diagnosis or on post-mortem examination is very great. The clinical manifestations of swine erysipelas, hemorrhagic septicemia and hog cholera are much the same. The post-mortem lesions are difficult to distinguish and a diagnosis should be substantiated by laboratory confirmation.

Because of the evident increase in the occurrence of the disease and also because of the difficulty experienced in diagnosis it is felt that the following article and report of a mild outbreak of it would be of value to those interested.

Swine Erysipelas is an acute infectious disease of a septicemic nature caused by a very fine rod shaped bacterium, the bacillus erysipelatus suis (erysipelothrix rhusiopathae). The disease occurs chiefly in swine but man, sheep, pigeons, rabbits and mice are susceptible. Pathologically it is characterized by gastroenteritis, swelling of the spleen, nephritis, and degeneration of the heart, liver and muscles.

The organism causing the disease was discovered by Loeffler in 1885. It is a fine gram positive rod. In animals that have died of erysipelas it is readily obtained from the spleen and kidneys. Experimentally it may be transmitted to pigeons, mice and rabbits. Pigeons are highly susceptible and they are most suitable for diagnostic inoculations. The organism may be recovered from the heart blood. Pigeons die in from 2 to 4 days after the injection of splenic pulp ground up with sterile bouillon.

In the body of acutely affected animals the distribution of the organism is general. In the subacute and chronic cases the bacilli are found in the affected parts in the skin and joints. Healthy swine may carry the organism in the tonsils and intestines. Outside of the body the organism may exist in the soil for at least a year, and under favourable conditions may multiply there. It is capable of resisting putrefaction and in meat is not destroyed by pickling, smoking or drying.

The avenue of infection is probably the digestive tract through the consumption of contaminated food stuffs. It may also gain entrance to the body through the skin.

The post-mortem examination of animals which have died from an attack of the acute form of the disease reveals a hemorrhagic gastroenteritis, a swollen spleen and evidence of cloudy swelling in both the liver and the kidneys. The visceral lymph glands of the digestive tract are engorged with a straw coloured exudate and some of them may be somewhat congested and hemorrhagic. The bladder on occasions is congested and contains small hemorrhages. As a rule the lungs do not show gross pathological changes but may be somewhat hyperemic or oedematous. Evidences of endocarditis may be observed by the presence of a fibrinous exudate adherent to its surface and the valves. The skin and subcutis is edematously infiltrated in the areas corresponding to the skin discolouration so often manifested in this disease.

In the chronic form of the disease evidence of a polyarthritis may be observed and also a vegetative endocarditis affecting the left auriculoventricular valves most frequently. Other local lesions such as skin gangrene, chronic pneumonic lesions and necrosis of the liver occur.

The clinical manifestations of the disease vary somewhat probably being dependent upon the virulency of the organism. Accordingly the authors of the literature on the subject classify it to conform with the character of the symptoms presented. Outbreaks of the disease are most frequently observed during the summer months. Pigs younger than three months of age are seldom affected. This is also true of animals over a year old. The latter may have acquired an immunity to it.

Three clinical forms or stages of the disease may be presented. The period of incubation is relatively short being from 3 to 5 days. In the acute form the owner or caretaker may not have realized an outbreak of disease until suddenly one or more members of the herd are found dead. Acutely sick animals isolate themselves and are reluctant about moving. If forced to move their back is arched and their gait stiff. They tend to remain in the bed and their appetite is poor or they entirely refuse to eat. Their temperature is usually quite high, ranging from 104 to 108° Fah. In the course of a few days some of these animals quickly regain their vitality and recover. Others may proceed into the chronic form of the disease.

Another type of the disease is the uticarial form, the so-called diamond skin disease. This is the commonest form of the disease recognized in

America. In reality it may not be more common but by virtue of the characteristic skin lesions is more easily recognized. The mortality is relatively low and the virulency of the organism in such outbreaks cannot be very great because normal pigs may mingle with the affected ones without manifesting sickness. It would seem almost benign in character. On occasions some of the affected animals will develop the chronic type as in the acute but not with such great frequency. Some writers speak of this form of the disease as a stage rather than a form. This may be a fair assumption for if the animal does not die shortly after the initial attack there is a tendency to develop the skin lesions. The skin lesions are particularly noticeable on the white breeds of pigs and develop on the ears, along the back and sides of the animal. If observed in the early stages they appear as rounded inflammatory elevations in the skin. In some cases these lesions never progress beyond that stage, but in the more seriously affected pigs a remarkably peculiar hemorrhagic extravasation occurs in which the extravasated blood assumes diamond or rhomboidal shaped form. On occasions related lesions may coalesce and destroy the contour of the rhomboid but nevertheless the straight cut edges and sharp pointed angles may be observed. Following the extravasation the lesion assumes a red color, but later on proceeds to a dark purple and ultimately brown. During this process the lesion may commence to heal and if so proceeds from the centre outwards. Failing in this the whole brown scab is exfoliated or in the more severe cases an area of the skin may become necrotic destroying the dermal tissue in the region. Coincident with the development of the skin lesions affected pigs manifest a degree of indisposal by remaining in their bed and not feeding. They also have a fever but the prostration is not nearly so marked as in the acute form. In a few days the temperature drops and they soon recover except that the skin lesions go through the metamorphosis indicated above. It takes 2 or 3 weeks for the skin to become normal and longer on those occasions in which necrosis results.

In the chronic form the most frequent lesions develop on the auriculoventricular valves, the result of an endocarditis. These lesions are typical valvular vegetations resulting in cardiac insufficiency and circulatory disturbances which keep the animal in ill health and may ultimately cause its death. In some of the chronic cases arthritis and other lesions develop depending upon the localization of the disease.

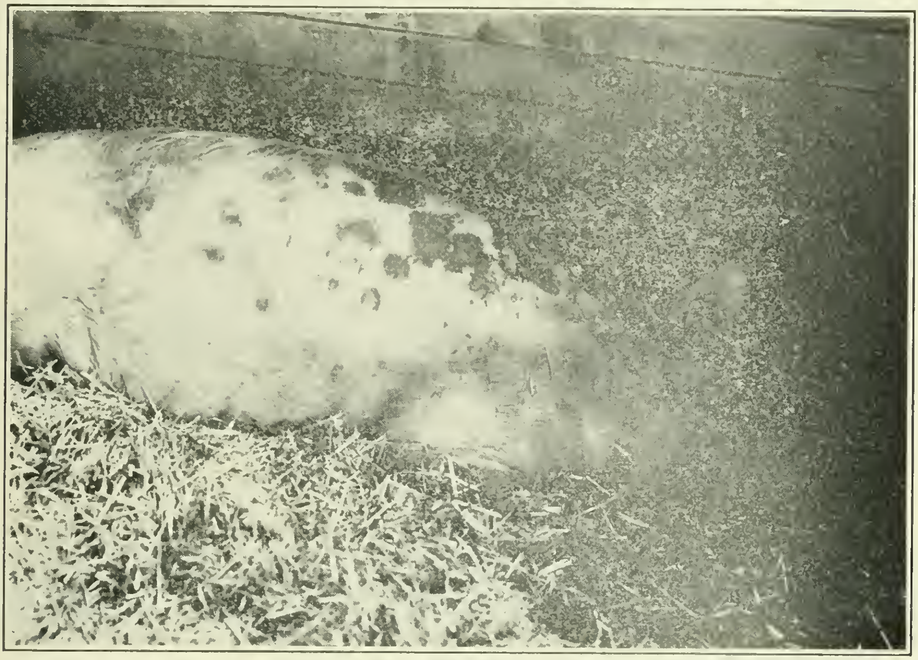
The diagnosis of the acute form of the disease is difficult because of its septicemic nature. The symptoms observed and the lesions found may be easily confused with those seen in other septicemic diseases. To definitely determine laboratory confirmation is required. The urticarial form is obvious and may be clinically recognized. An agglutination test may be applied which is thought to be fairly reliable.

The treatment of the disease consists of the administration of the antisera for this disease. It has been found to be quite effectual if given early in the case. Ten to thirty c.c is the dose recommended.

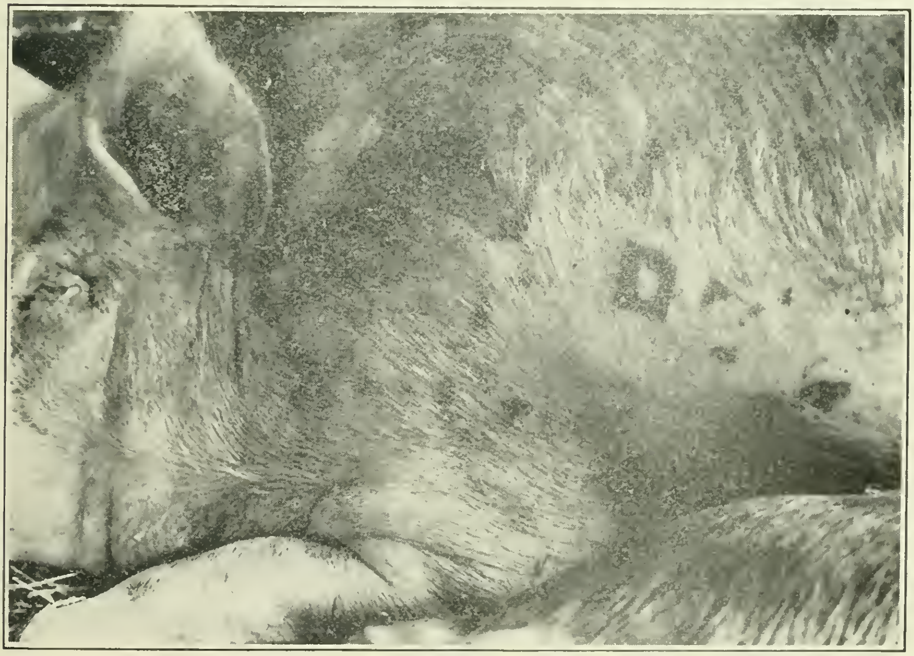
In the handling of an outbreak of the disease the healthy animals should be immediately isolated and given a protective dose of the anti-serum. A thorough cleaning and disinfection of the contaminated premises should follow.

In Europe in districts where the disease is prevalent simultaneous vaccination is used as a routine procedure to protect pigs from developing the disease. It consists of the administration of the anti-sera along with attenuated cultures of the organism. In America up to the present time the serum alone is the only inoculation preparation permitted for this use.

As an illustration of an outbreak of the disease the following clinical record together with pictures of the skin lesions is submitted. In this instance the disease occurred in 2 lots of 4 sows which were being kept for breeding purposes. They were all of the Yorkshire breed and about 8 months old. They were kept in pens side by side and allowed to mingle with each other when



Picture showing rhomboidal shaped hemorrhagic extravasations in the skin.



Picture showing diamond shaped hemorrhagic extravasations.

turned out. Another lot of 8 Berkshires also mingled with them on occasions. None of the Berkshires at any time showed signs of sickness. The opportunity of making daily observations and watching the course of the disease was provided. It was not until after the skin lesions were noticed that the writer's attention was drawn to the condition.

When first examined there were 3 sows in the first pen showing skin lesions and one in the second pen. Two of the affected animals were quite sick, another one somewhat indisposed but the fourth one did not manifest any sickness other than the presence of a few inflammatory blotches on her side. The following chart indicates the temperature readings observed.

Lot No. 1					Lot No. 2				
Date	Number and temperature of sows				Date	Number and temperature of sows			
	No. 72	No. 44	No. 39	No. 70		No. 71	No. 73	No. 163	No. 164
May 15	107	100.4	105.4	100.6	May 15	105.4	101.3	102.2	102
" 16	105	100.5	103.5	100.8	" 16	106	101.2	102.	101.8
" 17	105	101.5	Removed to Pasture		" 17	106			
" 18	102	101.4			" 18	104	Removed to pasture		
" 19	102	101.5			" 19	102			

Sows No. 72 and 71 were the most severely affected. Many skin lesions were noticeable along the back and sides. In color these ranged from round pink inflammatory elevations about the size of a silver dollar to dark purplish extravasations with square cut corners. These two animals were quite sick and would not leave their bed unless forced to. Their appetites were off and they were quite constipated. Some of the skin lesions were in the process of repair, healing from the centre outwards. Sow No. 39 had a few skin lesions of the early round inflammatory type but none of them ever became dark purplish in hue. She was somewhat indisposed but would eat and drink a little. Sow No. 44 only had 2 or 3 skin lesions and again of the inflammatory type which never proceeded to the extravasation stage. This sow did not have any fever or manifest any signs of sickness. An examination of the temperature chart reveals that in 4 days the temperatures of the severely affected sows had become normal. With the decline of the fever they steadily improved. To substantiate the diagnosis 2 or 3 of the lesions were incised into the subcutis and swabs were obtained for bacteriological examination and culture. Dr. Schofield who conducted this phase of the work found the organism in one of his cultures. Subsequently blood was obtained from the ear veins of these pigs and gave a positive agglutination test.

It was of interest to observe and note the process of repair in the skin of these two animals. The smaller and more isolated lesions gradually disappeared, the resorption of the extravasated blood taking place from the centre of the lesion outwards. In those areas on the back when the lesions had become confluent large continuous sheets of the epidermis were exfoliated along with some of the bristles. This process extended over a period of about two weeks and at the end of three weeks the sows appeared about normal.

In the handling of this outbreak the contact pigs were removed to a small pasture with colony houses for shelter and strict watch kept on them to note whether any of them developed the disease or not. The sick pigs were kept in the original pens until they recovered following which a thorough disinfection was applied. Anti swine erysipelas serum was ordered but by the time it was received the animals affected were beyond danger and it was not used. No therapeutic measures other than those of hygiene and sanitation were applied except to provide a laxative diet. Applications of olive oil were used to facilitate the exfoliation of the epidermal scabs.

THE NORMAL HISTOLOGY OF THE ENDOCRIN GLANDS OF GALLUS DOMESTICUS

By H. E. Batt, B.V.Sc.

The histology of the endocrin system of *G. domesticus* has not received much attention heretofore. Opple in his work on the microscopic anatomy of chordates mentions some of the endocrin organs of avians and mentions the domestic fowl among other birds. The writer of this article is not aware that the glands of the endocrin system of fowls have up to the present time been described as an entire system.

Histologically these organs are in some cases very similar to the same structures in mammals. In other cases there is a marked difference. It has been assumed that the reader has a working knowledge of mammalian histology and comparisons are drawn between the avian and the mammalian endocrin organs. It was thought well to mention the anatomical position of the glands as in some cases there is a difference in location when compared with the same structure as found in the mammal.

The Pineal Gland

Anatomical Situation—At median line in the transverse fissure, slightly protruding therefrom, covered by the tentorium cerebelli which supplies connective tissue for the capsule. The gland is a small pear-shaped structure, not distinctly lobed, and difficult to see with the naked eye.

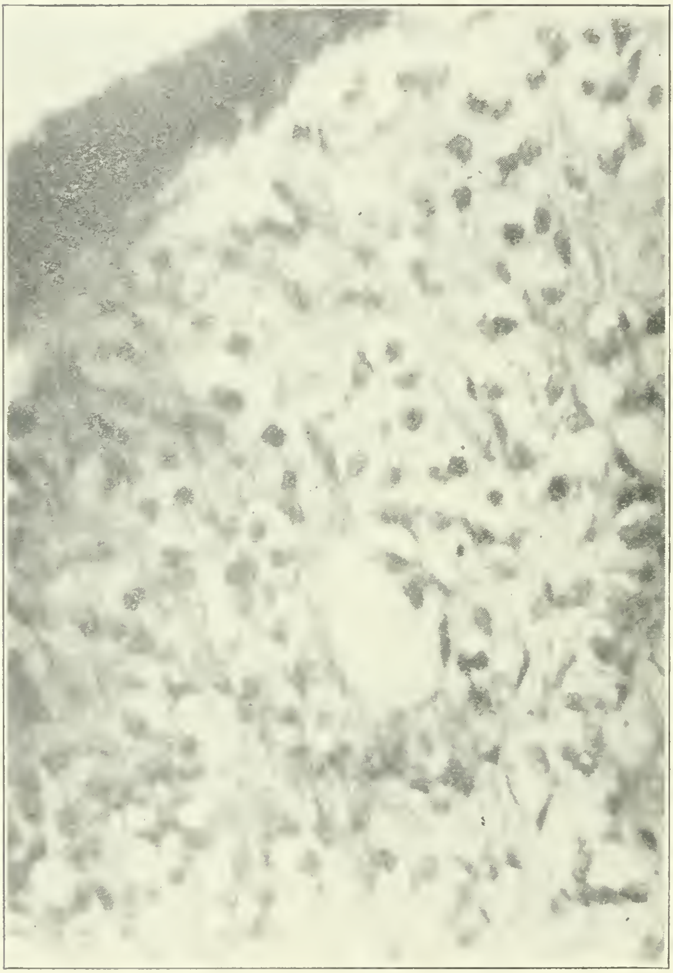
Gross Histology—The gland consists of a number of closely connected lobules separated one from the other by delicate trabaculae in which run the blood vessels. Strands of white fibrous connective tissue ramify throughout the parenchyma to form the supporting network. The capsule which is derived from the tentorium cerebelli is composed of white fibrous tissue and is remarkable because of a system of intra-capsular veins found therein. These veins almost completely surround the gland, assuming in some situations the appearance of venous sinuses from which arise branches that ramify within the trabaculae. These intra-capsular veins appear to be continuous with the sinuses of the dura mater. It is not uncommon to find scattered eosinophils embedded in the capsule. No muscle cells could be demonstrated.

Parenchyma—There appear to be three types of cells in the parenchyma of the pineal gland. (1) Neuroglia, (2) Interneuroglia or secretory cells, (3) Intermediate forms.

The Neuroglia are stellate or fusiform with dense, deeply staining nuclei. From these cells arise abundant fibres, the glia fibres, which blend with the connective tissue network of the organ. The neuroglia cells comprise about one-third of the parenchyma of the gland, the interneuroglial cells being most numerous.

The Interneuroglia cells are ovoid in shape, their nuclei being reticulated and pale staining. The cytoplasm is clear and contains fine fibrils. The cell membrane is distinct, in which fact they differ from the interneuroglia cells of mammals. Within each lobule are groups of interneuroglia cells that have

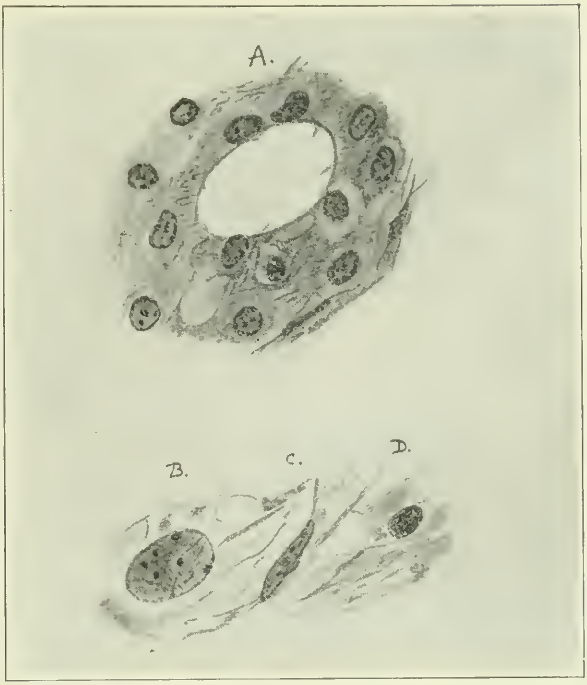
PINEAL GLAND



Detail of Pineal gland x *410*

In centre is a group of interneuroglia cells forming an alveolar-like structure. The dark mass of cells at upper left are blood cells in the intercapsular vein. The neuroglia cells are seen scattered among the predominating interneuroglia elements.

THE PINEAL GLAND



A. Group of interneuroglia cells x 450.
B. Interneuroglia cell x 960.
C. Neuroglia cell x 960.
D. Intermediate form x 960.

assumed an alveolar or follicular formation, each group of cells forming the boundary of a rounded central cavity into which are thrust a few fine cilia that arise from the cytoplasm of the surrounding cells. Some of these alveolar-like groups of interneuroglia cells surround a comparatively large lumen. Other groups are smaller, only a few cells entering into the formation. This arrangement gives the parenchyma of the gland the appearance of containing many rounded spaces.

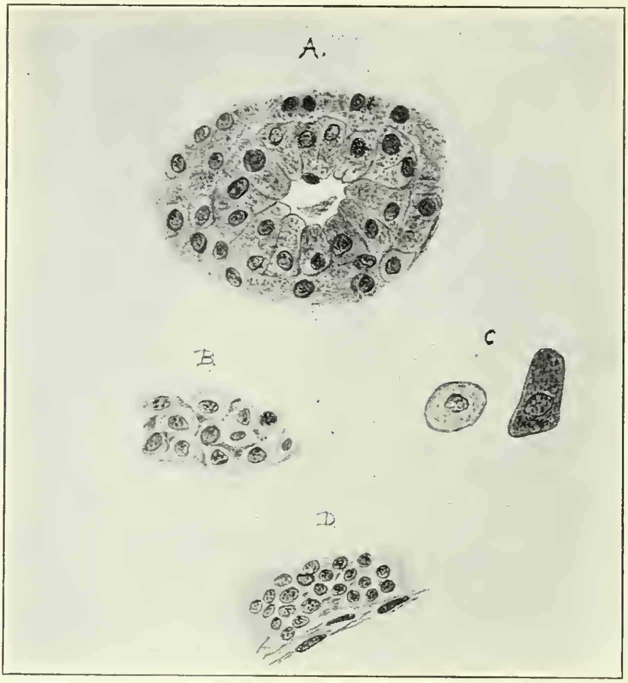
The intermediate forms which are scattered at random throughout the parenchyma are comparatively few in number and from their appearance seem to represent cells in various stages of transition between neuroglia and interneuroglia cells. They are slightly smaller than the interneuroglia cells, their nuclei being round and not as pale staining.

In adult birds (1 year and older) masses of brain sand (acervulus cerebri) appear.

The Pituitary Body

Anatomical Situation—As in mammals, at the base of brain in the sella turcica enclosed in a capsule derived from the dura mater. In the fresh state the organ is prominent and is deeper in colour than the brain itself. The gland is not so broad as is that of mammals, the stalk being longer and slender.

THE PITUITARY GLAND



Detail of Pars Glandularis

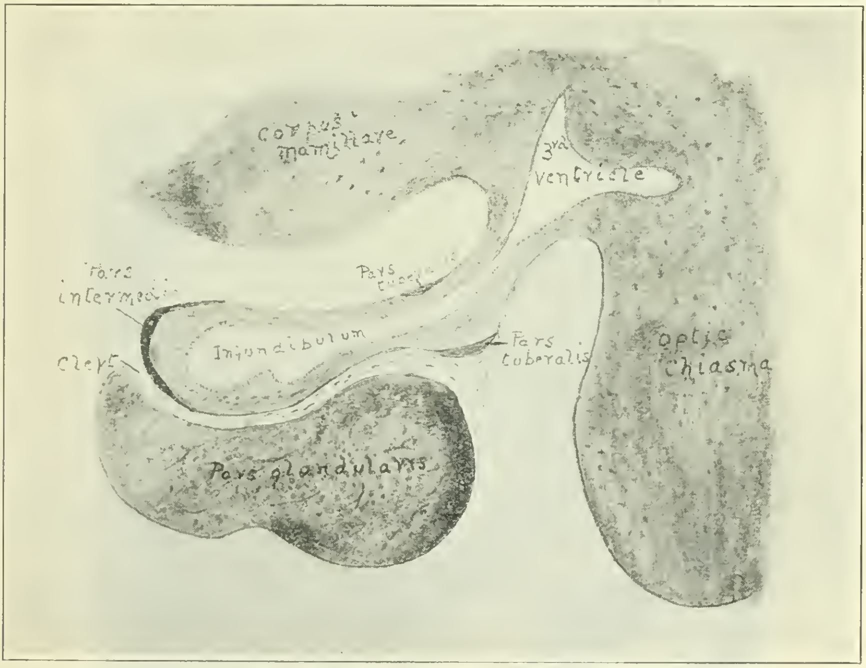
A. A group of cells showing an alveolar formation x 440.
B. Group of eosinophilic cells x 440.
C. Types of cells from Pars glandularis x 960.
D. Cells of Pars intermedia x 440.

Gross Histology—The organ consists of two distinct parts or lobes joined to the base of the brain by a stalk. In mammals anterior and posterior lobes are described in *G. domesticus*. The anterior lobe can more properly be spoken of as being ventral to the posterior lobe which lies above and but slightly posterior. In *G. domesticus* the pars nervosa (posterior lobe) is smaller in comparison to the pars glandularis (anterior lobe) than is the case in mammals. There is a well marked intra-glandular cleft. The cavity within the pars nervosa (Resessus infundibularis) is well developed. The two lobes of the gland are not as intimately connected as is the case in mammals. The pars tuberalis is but poorly developed. Pars intermedia is also not as prominent as is the case in mammalia. These last two facts give the gland the appearance of being of a somewhat simpler construction than the mammalian organ. A delicate capsule of fibrous tissue derived from the dura mater invests the gland. In close connection with the capsule are arterial and venous vessels and sinuses, the latter being part of the dural sinuses.

Pars glandularis. Histology—(anterior lobe) is composed of epithelium supported by delicate trabeculae and reticulum arising from and continuous with the fibrous tissue capsule which latter is derived from the dura mater. The pars glandularis is very vascular there being many thin walled sinus-like vessels ramifying throughout the substance of the gland. These sinuses somewhat resemble the sinusoides of the liver.

Parenchyma—In the pars glandularis there appear to be two types of epithelial cells, (1) acidophilic cells (2) basophilic, together with what are probably intermediate forms. (1) The *acidophilic cells* are most numerous in the anterior third of the pars glandularis. They are almost round with a distinct cell membrane. Their cytoplasm is densely granular and markedly eosinophilic. The nuclei are round, dense and dark staining. These cells are scattered among the other elements without any semblance of order. At the posterior third of the lobe this type of cell is absent. (2) The *basophilic cells* are more numerous than are the acidophilic type. They occur in groups, forming at times alveolar-like structures, the indistinct lumen of which contain a mass resembling colloid material. The basophilic cells are larger than the acidophilic elements. Their cytoplasm is in some cases coarsely granular and basophilic. In other stages the cytoplasm is indistinct so that the nucleus appears to be surrounded by a vaccuole. The nuclei of these cells are rounded with a pale staining reticulum. The other cellular elements are probably transition forms of basophilic cells as the progression may be traced by careful examination with oil emersion lens.

THE PITUITARY GLAND



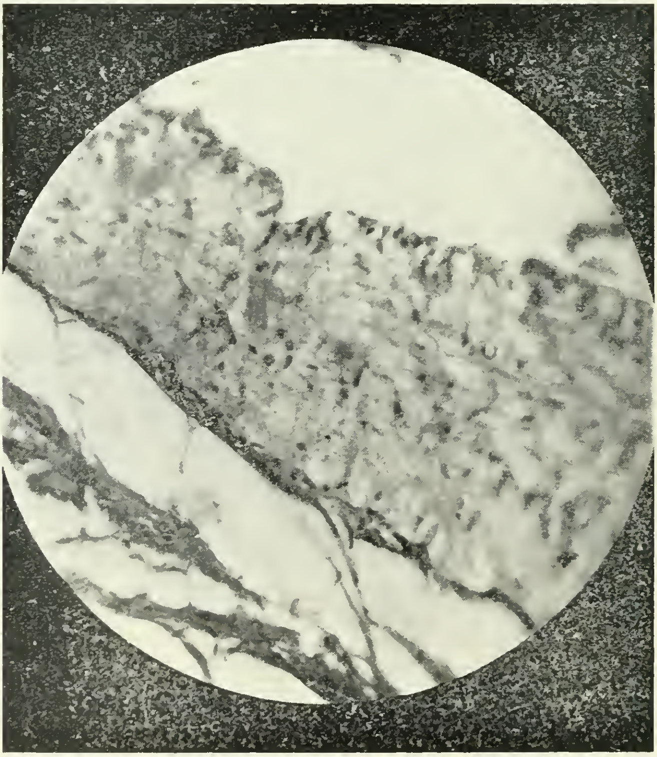
Semi-diagram of the Pituitary Gland of G. Domesticus.

Pars tuberalis. Gross Histology—This structure which is very prominent in mammals is quite insignificant in *G. domesticus*, consisting of a small mass of glandular tissue situated on the ventral aspect of the pituitary stalk (tuber cinereum). In some cases traces of *pars tuberalis* may be observed on the dorsum of the stalk.

Pars tuberalis. Histology—The pars tuberalis is composed of basophilic cells in a well marked reticulum of connective tissue derived from the dura mater. The parenchymal cells are arranged in small groups of three or more cells some of which form alveolar-like structures, the lumen of which contain a small amount of collora-like material. The cells themselves have a round, densely staining nucleus. Their cytoplasm is granular and basophilic. No acidophilic cells could be demonstrated.

Pars nervosa. Histology—As in the mammal, is composed largely of neuroglia fibres with glia cells scattered amongst them. No nerve cells could be demonstrated. In *G. domesticus* the neuroglia fibres are more abundant than is the case in mammals, the glia cells being relatively fewer in number. The surface of *pars nervosa* is covered by a fine fibrous tissue capsule derived from the dura mater. The *recessus infundibularis* is well marked being lined with a delicate layer of ependymal cells. No colloid-like material could be demonstrated within the lumen of the recessus. The layer of ependymal cells is thinner than is the case in mammals. In *G. domesticus* the *pars nervosa* is in two layers, the outer and more massive being of neuroglia cells and fibres. The inner layer is a narrow zone of ependymal cells surrounding the *recessus infundibularis*. *Pars intermedia* is not well developed in *G. domesticus*. It consists of a small mass of glandular tissue on the posterior border of *pars nervosa* at the median line and because of this fact the pituitary body of this animal is less complicated in structure than is the case in mammals.

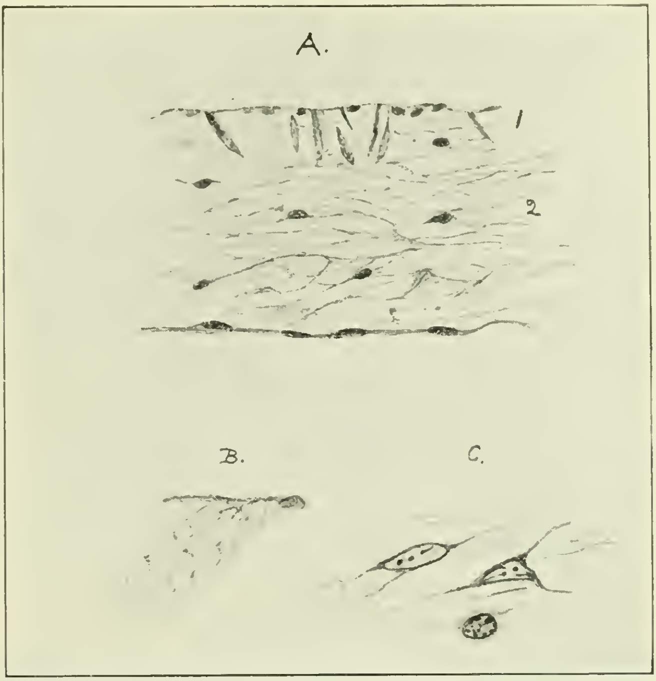
THE PITUITARY GLAND



Pars Nervosa x *450*

The upper edge is the boundary of the infundibulum and shows the ependymal cells.
The middle portion of the above shows the mass of neuroglia cells in pars nervosa. The glia fibres can be observed occurring in large numbers.
Lower portion represents the connective tissue in region of cleft.

PITUITARY GLAND



Detail of Pars Nervosa

A. 1. Ependymal cells lining infundibulum x 440.
2. Mass of Pars nervosa x 440.
B. Ependymal cells x 950.
C. Neuroglia cells x 950.

Pars intermedia. Gross Histology—In *G. domesticus* this structure is small, consisting of a mass of tissue situated on the posterior border of *pars nervosa* towards the median line. Consequently sections cut from the gland must be median and saggital or the *pars intermedia* cannot be demonstrated. From the mass of intermedial tissue strands run forward, one proceeding a short distance into the cleft where it soon thins out and disappears. Another thin sheet or strand of pars intermedia is directed forward over the dorsal surface of *pars nervosa* near the median line but this too proceeds but a short distance, rapidly thinning out and finally disappearing.

Histology—The cellular elements of *pars intermedia* are slightly smaller than are those of *pars glandularis.* Their cytoplasm is faintly granular and basophilic. The nuclei are ovoid and reticular. A delicate reticulum of interstitial tissue supports the parenchyma, being derived from the capsule of *pars nervosa.* The parenchymal cells strongly resemble the basophilic cells of *pars tuberalis* but no alveolar-like groups of cells are present, neither could any colloid-like material be demonstrated.

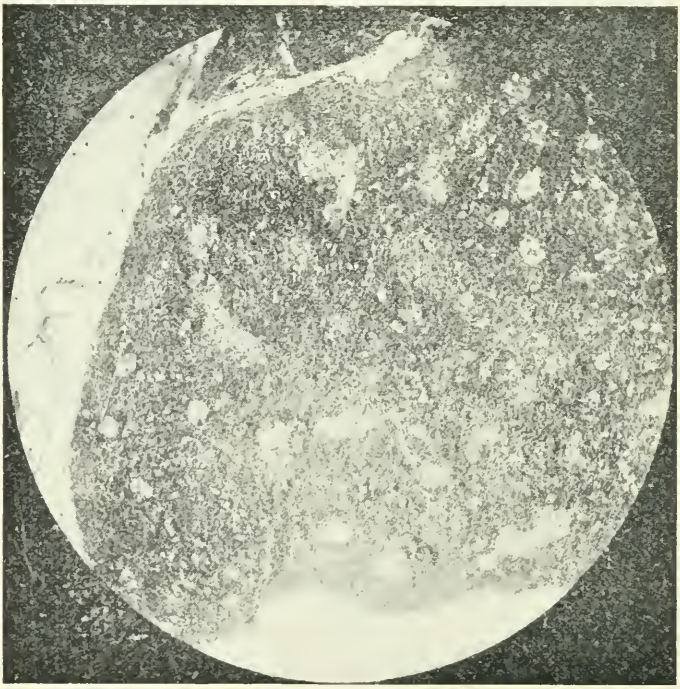
The Thymus Gland

Anatomical Situation—Three pairs of masses of glandular tissue, each about the size of a flattened wheat grain, on the sides of the neck along the course of the carotid artery. Being in the subcutaneous tissue and fat these glands frequently adhere to the skin when it is removed. The glands are in three masses, the upper being about one half way up the neck. The lower are close to the point where the trachea enters the thorax. In the fresh specimen they are light yellow in color.

Gross Histology—Each glandular mass consists of a number of loosely connected lobules. The capsule is composed of fat and areolar tissue. Masses of fat extend between adjacent lobules. Within the lobules are masses of lymphoid cells supported by a delicate stroma of connective tissue. The lobule is not clearly divided into cortical and medullary as is the case in the mammalian thymus. The gland is very vascular, with numerous blood and lymph capillaries ramifying throughout the parenchyma. The lobules are larger than are those of the mammalian thymus. Scattered among the lymphoid cells are a number of alveolar-like structures outlined by a single layer of cells. Within the lumen of some of these groups a colloid-like substance can be observed. (Somewhat similar structures are found in the parathyroid of *G. domesticus*).

The Cellular Elements—Three types of cells are present. (1) The lymphoid cells. These are by far the most numerous and resemble small mono-nuclear lymphocytes. They form the bulk of the parenchyma. (2) Scattered among the lymphoid cells at no definite points are a number of large cells, the cytoplasm of which stains brilliantly with eosin and shows faint striations. Their

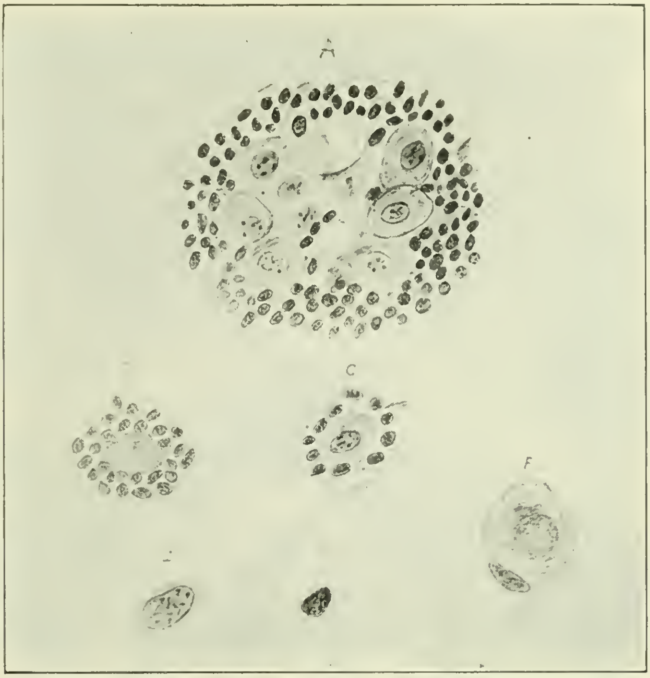
THE THYMUS GLAND



A Lobule of the Thymus x 150

The above illustrates the fact that the lobules of the thymus gland of G. domesticus are not divided into cortical and medullary portions as is the case in the mammalial thymic lobule. The alveolar-like structures referred to in the text can be seen scattered among the masses of lymphoid cells.

THE THYMUS GLAND



Detail of Thymus Gland

A. Group of reticular cells surrounded by lymphoid cells x 440.
B. A mass of colloid material embedded among lymphoid cells x 440.
C. A cell surrounded by colloid x 440.
D. & E. Types of lymphoid thymic cells x 960.
F. An Hassel's corpuscle x 440.

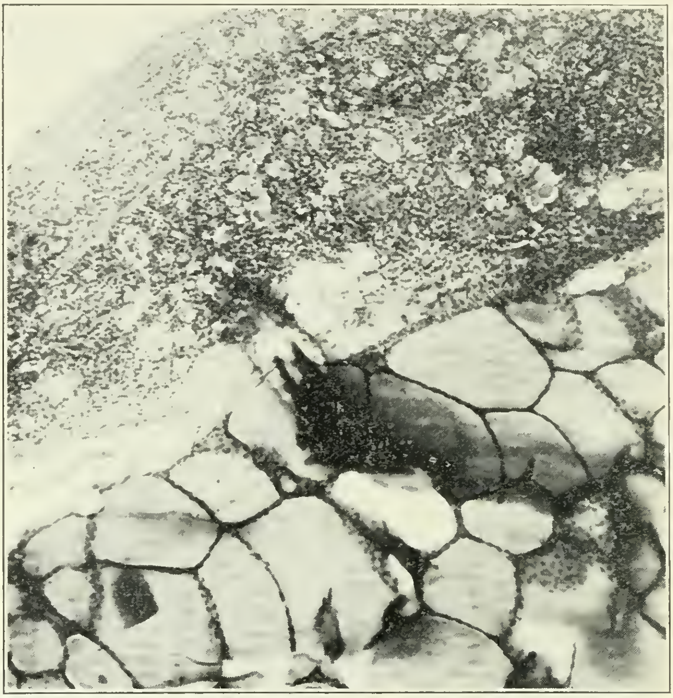
nucleus is large and reticulated and is centrally placed in the cell. These cells appear as single elements and are not found adjacent to one another. It is possible that these single cell-like structures are the undeveloped form of the alveolar structures mentioned above. They strongly resemble the so-called myoid cells found in the thymus of amphibians. Cells very similar to these are found in the parathyroid glands of *G. domesticus* (colloid cells).

The Thyroid Gland

Anatomical Situation—The thyroid gland of *G. domesticus* consists of two distinct lobes, not connected by an isthmus. They lie in the thoracic cavity anterior to the bifurcation of the trachea dorsal, and slightly anterior to the base of the heart. The left lobe is attached to the outer border of the oesophagus, the right one being slightly to the right side of the trachea and not attached to the latter organ, but rather to the tissue covering the cervical muscles. Both lobes are close to the median side of the right and left carotid arteries respectively.

Gross Histology—The thyroidian lobe is small, being about the size of a small wheat grain, light yellow in color and slightly flattened. The capsule is very delicate, being composed of white fibrous tissue. From this capsule a fine reticulum ramifies within the gland. The parathyroid masses cannot be seen by the naked eye.

THYROID AND PARATHYROID



The Thyroid and Parathyroid Glands of G. Domesticus x *150*

The above shows the intimate relationship between these two glands similar to that of mammals.
The upper half is Parathyroid gland. The groups of epitheloid and of colloid cells can be seen scattered among the lymphoid elements.
There is an histological resemblance between this gland and the thymus as noted in text and illustrated by comparing the above with figure.

The histological elements in the thyroid gland of *G. domesticus* are very similar to those found in the mammalian thyroid. The interstitial tissue is not at all prominent but can be demonstrated by careful examination as a delicate network investing the glandular follicles forming a support for the follicular epithelium.

Parenchyma—The follicles are ovoid sacs of various sizes, some being large, others smaller. In certain mammals (horse) the thyroid gland always contains follicles in various stages of activity, some being quite immature and having no colloid. In the avian thyroid the great majority of the follicles are in a state of activity and contain colloid material, there being few immature follicles. The epithelium of the larger follicles is flattened, there being a single layer of squamous cells. In follicles containing little colloid the epithelium is a single layer of cuboidal cells. Histologically the thyroid of *G. domesticus* is very similar to that of mammals.

THE PARATHYROIDS

Anatomical Situation—As in mammals, the parathyroids are found in conjunction with the thyroid lobes, being included within the capsule of that gland. They are too minute to be seen by the naked eye.

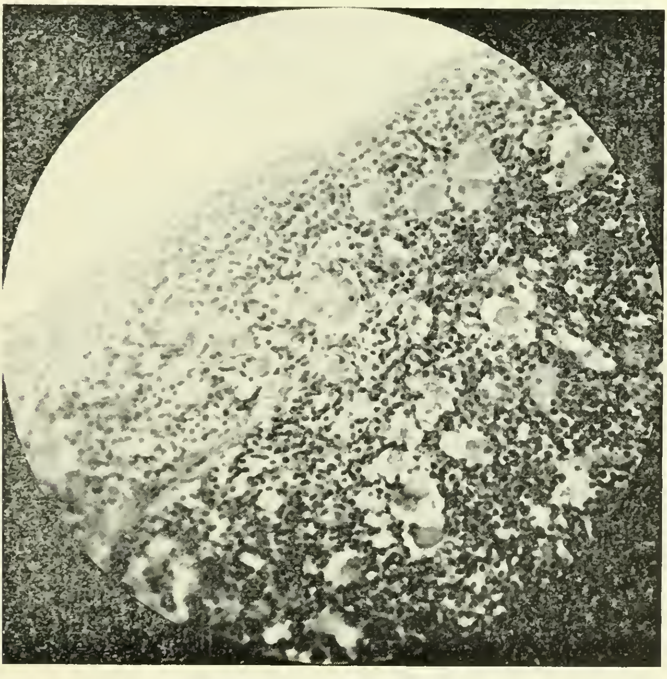
Histology—In *G. domesticus* the histological elements of the parathyroid are almost identical with those of the thymus gland. Indeed it is difficult to distinguish between them in any given field. The capsule of the gland is very delicate. In some situations it is difficult to demonstrate. The interstitial tissue is scanty, consisting of a very delicate reticulum of white fibrous tissue supporting the capillary blood vessels.

The Parenchyma—There appear to be three, or possibly four, kinds of cells in the parenchyma of the parathyroid of *G. domesticus.* (1) Cells which resemble small mono-nuclear lymphocytes. (2) Cells with a pale staining nucleus and eosinophilic cytoplasm. (3) Cells occurring in groups throughout the parenchyma of the organ. (4) Colloid cells.

The lymphatic cells form the greater bulk of the parenchyma. They are small, having a round dark staining nucleus. The amount of cytoplasm present is scanty and but slightly eosinophilic. There is a distinct cell membrane. These cells are in dense masses among which the other elements are scattered. There appears to be no attempt at the formation of cords of cells as is the case in some mammals.

The second type of cells are slightly larger, but much fewer in number, having a round pale staining nucleus in which the chromatic network is very delicate. The cytoplasm is acidophilic and is more abundant than is the case in the first mentioned lymphatic cells.

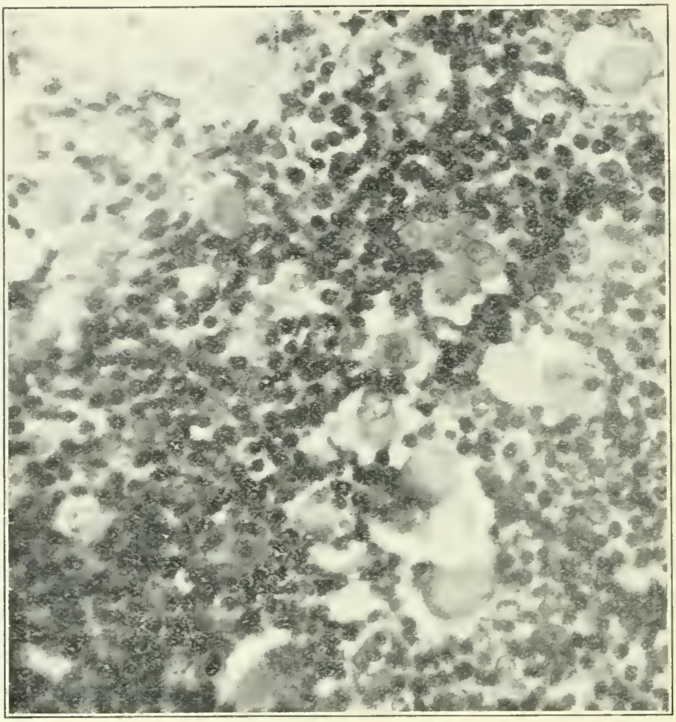
THE PARATHYROID GLAND



The Parathyroid Gland x *300*

Numbers of colloid containing cells can be observed scattered among the parenchymal cells. A light strand of stroma can be seen running diagonally across from the left.

THE PARATHYROID GLAND



The Parathyroid Gland x *440*

A field of an area just below and slightly to right of the centre of figure. The large colloid containing cells are seen scattered among the lymphoid cells.

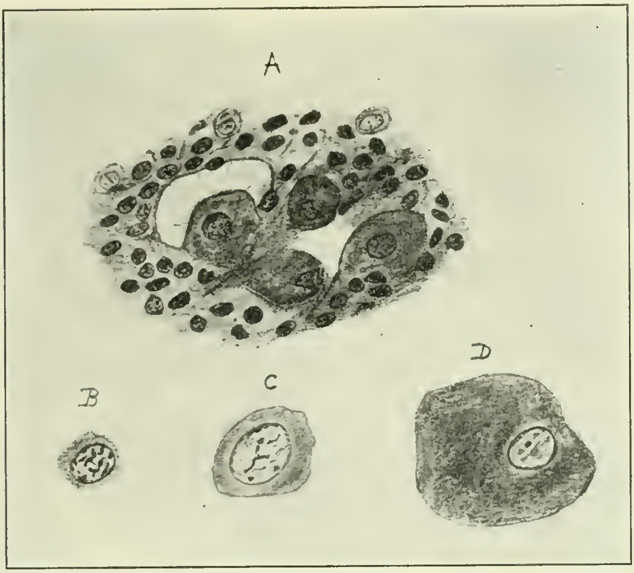
The third type of cell occur in groups of from six to twenty cells. These masses are scattered evenly throughout the parenchyma in no particular order. They are large with a round pale staining reticular nucleus. Their cytoplasm is abundant, and contains delicate fibrils and granules. There is a distinct cell membrane. These cells strongly resemble the epithelial cells of the thyroidian follicle.

The Colloid Cells—These strongly resemble the so-called myoid cells of the avian thymus. They are scattered throughout the gland in no particular order. It is probable that they represent a more advanced or mature form of the third type mentioned above. They appear singly or in groups of up to four cells. The nucleus is ovoid and pale staining. The cytoplasm is very abundant, being quite acidophilic, finely granular, or in some cases homogeneous in structure, having much the same appearance as the colloid material in the alveoli of the thyroid gland. Some small colloid masses appear to have no nucleus. In others a nucleus is to be found embedded in the surrounding mass of colloid substance. The rounded spaces in which these large elements are found are bounded by the small lymph cell elements before mentioned.

THE ARDENAL GLAND

Anatomical Situation—A pair of small, somewhat triangular shaped, glands each about the size of a pea situated at the anterior border of the kidney being

THE PARATHYROID GLAND



Detail of Cells of Parathyroid

A. Showing the arrangement of Parathyroid cells x 440.
B. Lymphoid cell x 960.
C. Epitheloid cell x 960.
D. Cell containing colloid-like substance x 960.

loosely attached to that organ. In the male the testicle lies just median to the adrenal. In the female the gland is intimately associated with the attachments of the ovary. In the fresh specimen the gland is dark in color.

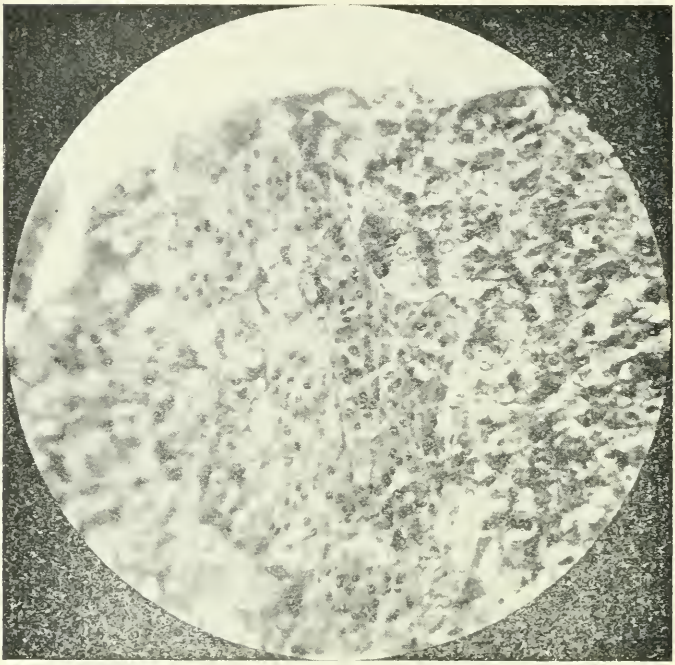
Histology—The capsule is well developed being composed of white fibrous tissue. From the capsule delicate fibrillae pass into the parenchyma but do not form definite trabaculae as is the case in the mammalian adrenal. In fact the avian adrenal contains but little fibrous tissue elements. In the capsule are well marked lymphatic vessels together with arterioles and veins. These vessels provide the parenchyma with a capillary network that ramifies throughout the organ. Large sinus-like veins are found in the central portion of the gland in a manner similar to those present in the mammalian adrenal.

The Parenchyma—As in mammals, two distinct types of cell comprise the parenchyma of the gland. (1) The chromaffin cells, (2) The interrenal cells or cortical component. There is no well marked division into cortex and medulla as in the mammalian organ. The histological arrangement within the avian adrenal represents a stage between that of the lower chordates and that found in the mammal.

In the avian gland the two types of cells each form cords and masses that are intertwined. The total area of chromaffin cells in any given section seems to slightly exceed that of the interrenal cells.

The Chromaffin Cells—There appear to be two types of chromaffin cells. (1) Ovoid cells with indistinct cell membranes having a large rounded reticular nucleus. The cytoplasm is finely granular and reticulated. This type of cell is

ADRENAL GLAND



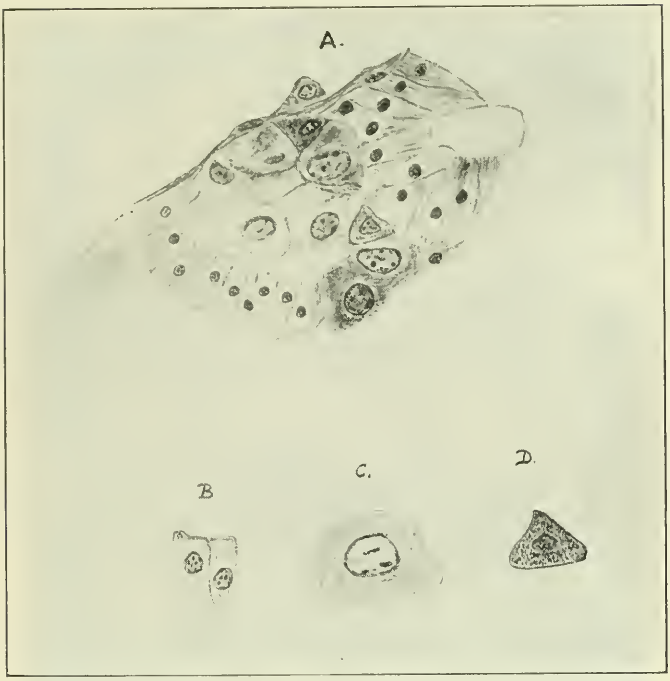
Adrenal Gland of G. domesticus x 440

Field from central portion of organ. The space above is one of the central veins. In central portion is seen a cord of cortical cells with masses of chromaffin on each side. The large and small elements are clearly demonstrated.

more numerous than is the second. (2) Among the ovoid above mentioned cells are scattered, single cells or small groups of slightly smaller cells somewhat triangular in outline. The cell outline is distinct. The nucleus is small and very dark staining. Some of these elements contain two nuclei. This type seems to be most numerous towards the medulla of the gland. The chromaffin cells occur in cords or masses which are distributed throughout the entire gland, being interposed between the cords of cortical componant. There is always a layer of chromaffin cells just beneath the capsule of the gland separating the capsule from the glomerular portion of the cortical componant. The chromaffin cells are more numerous than are the cells of the cortical componant comprising about three fifths of the parenchyma. They are frequently grouped into alveolar-like structures but without any distinct lumen. Some of these groups surround a capillary blood vessel. The cytoplasm of both types of cells contain many chromaffin granules which gives a distinct purple color when stained with hemotoxylin.

The Cortical Component—The cells of this portion of the gland are very similar in appearance to those found in the cortex of the mammalian adrenal, but their arrangement is different. The cords of cortical and chromaffin cells are intertwined, there being no demarcation into cortex and medulla in the avian adrenal. The cords of cortical component branch and anastomose with one another. The peripheal end of each cord forms an indistinct glomerulus in the centre of which is a small lumen. From the glomerular portion the cord of cells passes towards the medulla of the gland where they are much twisted and

THE ADRENAL GLAND



Detail of Cells of Adrenal Gland of G. domesticus

A. Showing the arrangement of the chromaffin and cortical cells x 440.
B. Detail of cells of cortical componant x 960.
C. Large chromaffin cell x 960.
D. Small chromaffin cell x 960.

intertwined one with the other. There can hardly be said to be any distinct *Zona fasciculata* as in the mammalian adrenal. A *Zona reticularis* is present and this portion of the cortical component enters the central medullary portion of the gland penetrating even to the margins of the central veins. The cells of the cortical component are columnar in type being arranged in single or double rows and except in the glomerular portion no lumen can be demonstrated. Between the adjacent chromaffin cells and the cords of cortical cells run thin-walled capillary vessels that empty into the medullary veins. In the glomerular portion of the cords the cell outlines are not very distinct. The cytoplasm takes eosin very readily, being granular with very fine longitudinal striations. Most of their nuclei are round and deeply stained. About 20% of these cells have slightly larger, paler staining reticular nuclei. The cytoplasm of both types are similar. The cells of the indistinct *Zona fasciculata* are similar. The cords of cells in *Zona reticulata* are more attenuated, there being large masses of chromaffin cells between adjacent cords. The cells of this portion are low columnar with dense dark staining nuclei. The cytoplasm is very granular and eosinophilic.

THE PANCREATIC ISLETS

Anatomical Situation—Embedded within the substance of the pancreas, in the same manner as in the mammal. The islets are scattered throughout the pancreas in numbers similar to those in the mammal.

Histology—Each islet appears as a circumscribed mass of epithelial cells and is surrounded by a delicate fibrous capsule from which delicate fibrils pass into the mass. The epithelium is arranged in irregular anastromosing cords between which are wide blood vessels or sinusoids whose walls are exceedingly thin, so that the blood is in close contact with the epithelium of the islet. The epithelial cells are slightly smaller than are those of the mammalian islet. Otherwise their histological appearance is the same.

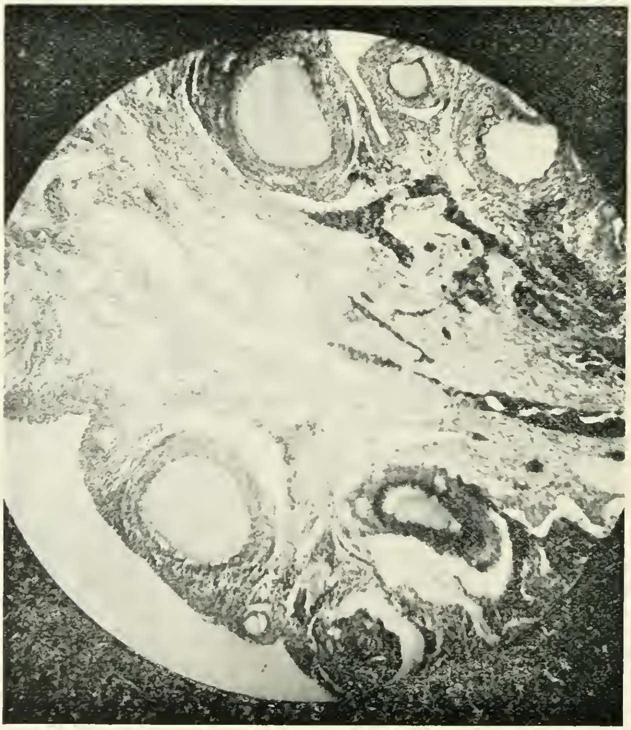
THE STROMA OF THE OVARY

The ovarian stroma only is being dealt with in this description.

Anatomical Situation of Ovary—The ovary of *G. domesticus* is situated supra-anterior in the abdominal cavity at the anterior border of the left kidney just posterior to the posterior border of the left lung. The ovary is intimately attached to the roof of the abdominal cavity on the left side of the vertebrae. Only the left ovary is developed.

Gross Histology—The surface of the gland is irregular. The germinal epithelium together with its underlying stroma is thrown into folds that assume a papilla-like formation. Embedded in the peripheal stroma are numerous ova in various stages of development. Where yolk development is well advanced

THE OVARY

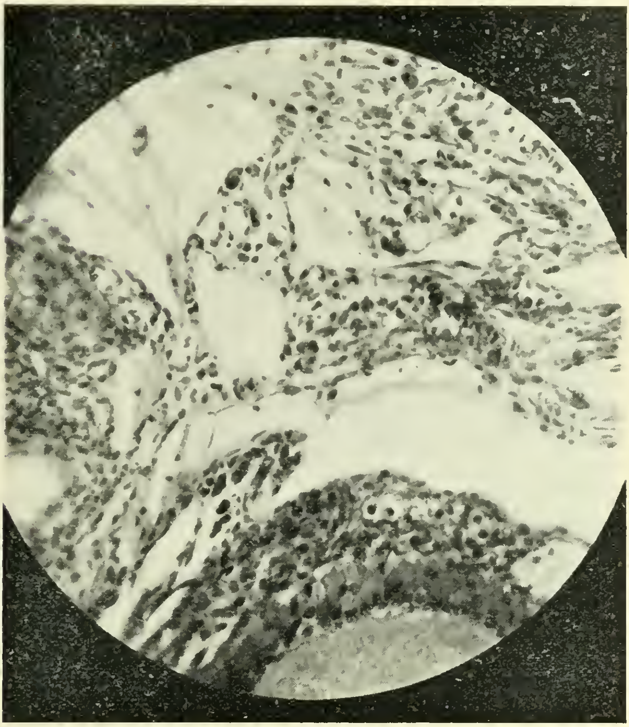


Ovary of G. domesticus x 150

The above illustrates the spongy appearance of the ovarian stroma. On the right will be noticed a number of blood vessels some of which assume the dimensions of sinuses.

The irregular outline of the surface of the avian ovary is also demonstrated.

THE OVARY



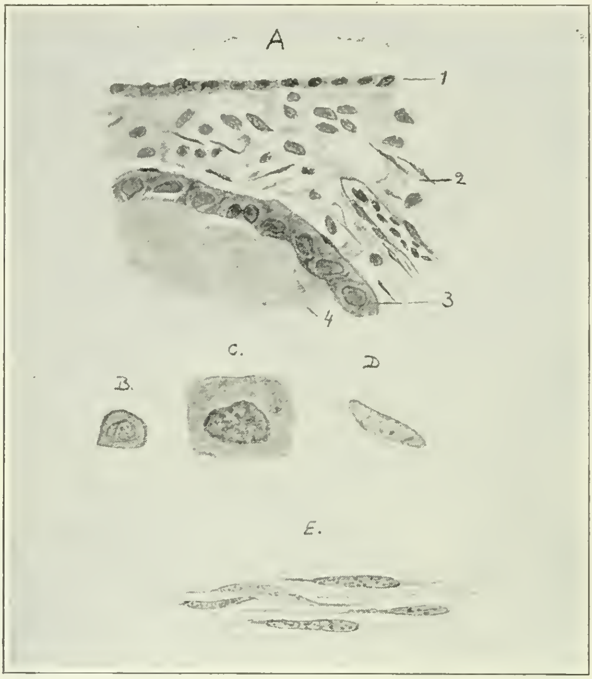
The Ovarian Stroma x 440
The sponge-like structure of the ovarian stroma is well illustrated. At lower edge of the picture is seen a developing ovum.

the ovum protrudes from the surface of the ovary, being connected to the ovarian stroma by a peduncle, or stalk. The ovary is very vascular, there being numerous blood and lymphatic vessels ramifying throughout the stroma. Some of the blood vessels assume the proportions of sinuses which branch towards the periphery. At the surface of the organ where the stroma is thrown into folds the number of blood channels present gives the tissue quite a spongy appearance.

The stroma itself is composed of white fibrous tissue. The cells are fusiform with an elongated dark staining nucleus. Embedded within the connective tissue stroma are groups of epithelial-like cells. These are rounded with but little cytoplasm. Their nuclei are ovoid and dark-staining. From these groups of cells arise the follicular cells which surround the developing ova. In the early stages of yolk development they appear as a single layer of cuboidal cells. Later, as yolk development advances, they become flattened assuming a squamous-like formation two or three cells deep. They completely surround the rapidly developing yolk mass. In *G. domesticus* there is no theca folliculorum such as is found in mammals. Only the single layer of above mentioned cells about the yolk mass separate it from the stroma.

Embedded within the stroma are groups of cells that at first sight somewhat resemble fat cells. These cells are round. Their cytoplasm is slightly eosinophilic and contains a fibrillar network. The nucleus is small, dark staining and is frequently near the cell membrane, as if the pressure of the cytoplasm had forced it toward the periphery. Groups of these cells are always

THE OVARY



Detail of Cells in Stroma of Ovary

A A section of ovary at periphery of organ x 440.
  (1) General epithelium.
  (2) Ovarian stroma.
  (3) Epithelium of theca.
  (4) Yolk.
B. Germinal epithelium x 960.
C. Detail of thecal cell x 960.
D. Detail of cell of stroma x 960.
E. Detail of connective tissue cells of medulla x 960.

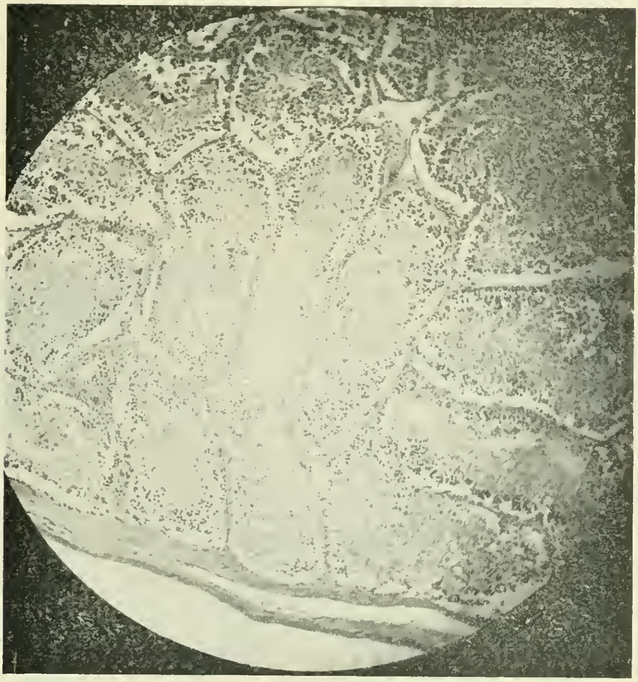
found just beneath the layer of cells enclosing the developing yolk mass, in which case their cytoplasm is granular being indistinguishable from the yolk material. These cells are in all probability analogues of the nurse cells so prominent in the ovary of fishes and reptiles. In the ovarian stroma are also found large numbers of lymphocytes and in some cases numbers of eosinophils are found just beneath the germinal epithelium.

The Stroma of the Testicle

Anatomical Situation—Supra anterior in abdominal cavity, dorsal to intestines.

The stroma of the testicle of *G. domesticus* is composed of white fibrous tissue. The capsule is thin, being of fibrous tissue arranged in two layers of equal thickness. The outermost layer which corresponds to the *tunica albuginea* of mammals is dense. The inner layer is of looser texture. There appears to be no distinct *tunica vasculosa* as the blood vessels are not confined to the inner layer of the capsule but ramify through both. The outer surface of the gland is covered by peritoneum. No elastic tissue fibres could be demonstrated in the capsule.

TESTICLE



Testicle, G. domesticus x *140*

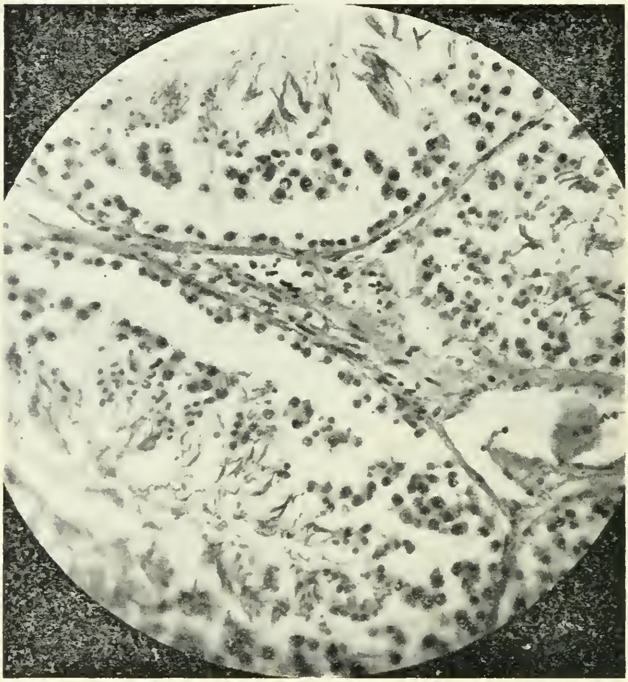
The above illustrates the small amount of connective tissue present in the avian testicle. Along lower edge will be noticed one of the veins in the capsule.

The interstitial tissue consists of a fine reticulum of white fibrous connective tissue investing the seminiferous tubules. The amount of interstitial tissue is light when compared with that in the mammalian organ.

The interstitial cells of Leydig which are so prominent in the testes of mammals are not plentiful in the testicle of *G. domesticus*. They are found as groups of cells between adjacent tubules. When a section is examined by low power (100) only one or two such groups will be found in each field of the microscope. Cells resembling Leydig cells can be found embedded within the inner layer of the capsule.

The Leydig cells are in groups of about six to twenty cells. Their nuclei are ovoid, very pale staining and finely reticulated. The cytoplasm contains very fine fibrillae. The cells membranes are indistinct, there being no visible demarkation between adjacent cells. The cells have the appearance of immature connective tissue cells.

TESTICLE



Testicle of G. domesticus x 450

In the central part of the above will be found an island of connective tissue and Leydig cells. These, as mentioned in text, are not numerous in the avian testicle. The slight development of the trabaculae between adjacent seminiferous tubules will be noticed.

PRELIMINARY REPORT UPON THE USE OF AZAMINE (TOLYL-AZODIAMINO-PYRIDINE-HYDROCHLORIDE) FOR THE TREATMENT OF COCCIDIOSIS.

A. A. Kingscotte, B.V.Sc.

During the past year the opportunity has been taken to test the value of the dye azamine in the treatment of coccidiosis. Preliminary experiments have been conducted in experimental and natural infections among birds and mink respectively.

Experiment A—Six young chickens were obtained from brooders where no history of coccidios's existed. To insure that the birds were not immune to infection individual faecal examinations were made daily for a period of nine days which is over the prepatent period of development for most avian Coccidia. One bird passed a small number of *Eimeria mitis* oocysts, but as immunity to this species is delayed the bird was retained.

All six birds were then administered approximately 500,000 sporulated oocysts (estimated in Stoll flask) from a mixed potassium dichromate culture of *Eimeria tenella* and *Eimeria mitis.*

Two of the birds received 0.025 grams of azamine in enteric coated capsules the day preceding administration of the öocysts and every day following for twelve days.

Two more birds received azamine as above but only on alternate days.

The remaining two birds were kept as controls and received no azamine.

Individual faecal samples were collected each day and examined for Coccidia by the Willis technique never later than 48 hours after collection. On the fifth day after infection until the twelfth all principal and control birds passed öocysts of both species of Coccidia which had been fed. The four birds which received azamine, apart from passing stools stained a bright red with the dye, remained normal in appearance. The two control birds passed blood and mucus in their stools and developed all the clinical symptoms of coccidiosis.

The experiment indicates that 0.025 gram of azamine administered daily or on alternate days will not inhibit the endogenous development of *E. tenella* or *E. mitis* but that its use will inhibit the development of the clinical symptoms of the disease. It is felt that the results are sufficiently promising to warrant further investigations with larger doses of azamine and experiments in this connection are planned for the coming year.

Experiment B—This experiment was conducted in the field under the supervision of Dr. C. A. Martin, M.D.

In a mink ranch consisting of 95 animals, 66 kittens and one adult had been sick and rapidly failing in condition over a period of three weeks. Eight of the animals died. The autopsies upon these animals and faecal examinations made upon twenty stools taken at random through the ranch indicated that the disease was coccidiosis caused by *Eimeria vison* n. sp. An unidentified specias of Isospora appeared in the stools of some of the animals also.

81 mink were used as principals and five as control animals. 120 grains of azamine were mixed with the food of the 81 principals but none to that of

the controls. All animals were also moved to wire bottomed pens to prevent reinfestation.

Weekly tests were made for coccidial ööcysts in the stools of the five control animals and in those of fifteen principals taken at random through the ranch. Five such weekly tests were made and a sixth test three weeks after the fifth. After the second test all stools remained negative for occidial ööcysts. One of the control animals died but no further deaths occurred among the principals which received azamine for twelve days. The fact that the control animals became free from infection proved the value of the wire floors but makes the experiment in connection with azamine technically questionable. Reports received from Dr. Martin, however left little doubt that the animals which received azamine showed a marked improvement in appetite, threw off the effects of the disease, fattened and furred out more rapidly than the control animals, one of which died and the remainder of which were poor and unthrifty even some weeks after the experiment was completed.

The azamine used in both these experiments was supplied through the courtesy of Rare Chemicals Inc., Nepera Park, N. Y.

The writer wishes to express his thanks to Dr. C. A. Martin and Dr. J. S. Glover for their generous cooperation in connection with these experiments.

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MYIASIS IN MAN AND ANIMALS DUE TO INFECTION WITH THE LARVAE OF *WOHLFAHRTIA VIGIL* (WALKER).

A. A. Kingscotte, B.V.Sc.

During the past few years numerous enquiries have been made regarding the treatment and prevention of cutaneous myiasis. In the spring and summer of 1934 the disease appeared enzootically in many parts of Southern Ontario; children, dogs, cats, foxes, mink, ferrets and rabbits were infected. A total of one hundred and eighty cases were definitely attributed to infection with the larvae of *Wohlfahrtia vigil*. There is much evidence to indicate that this number is representative only of a small percentage of the cases which actually occurred.

As a result of the numerous appeals for assistance an effort has been made to collect all available information concerning the flies, their prevalence, geographical distribution and the most suitable means of treating and preventing the disease of which they are the cause. The present treatise summarizes such information which has been obtained from the available literature, observations in the field and upon successive generations of flies raised in the laboratory.

Definition—Cutaneous myiasis caused by infection with the larvae of the Sarcophagid fly *Wohlfahrtia vigil* (Walker) is a disease apparently confined to eastern Canada and the north eastern part of the United States. From June to September the female flies deposit living larvae upon the unbroken skin of children and the young of several species of mammals. The larvae penetrate the skin, develop rapidly and produce "boil-like" lesions. The skin and subcutaneous tissues become inflammed, the temperature slightly elevated, secondary bacterial infection occurs. Pitiable symptoms are manifested by crying, irritability, dehydration and loss of appetite. Young animals become emaciated and the infection often terminates fatally.

Historical—Walker (1920, 1922, 1931) recorded the first and several subsequent cases of *W. vigil* infection in children. Brady (1923) and Chown (1924) both described cases in infants. Johannsen (1926) reported the infection in rabbits near Ithaca, New York. Kingscote (1931) published an account of the occurrence of the disease in a silver fox puppy. Riley (1934) comments on the prevalence of the infection among young mink in Minnesota and states that during the summer of 1931 the enquiries regarding the parasite were particularly numerous. From these cases a number of the larvae were identified as those of *W. vigil* by Dr. J. M. Aldrich of the United States National Museum. The disease had also been encountered in foxes and reports received that ferrets had been troubled and children in the Dakotas parasitized by the maggots.

Ford (1932) published a report dealing with the life history and behavior of *W. vigil*.

Enquiries made throughout Canada further reveal that mink ranchers in particular lost numerous young animals from myiasis in the years 1929 and 1930. In such cases the lesions described were typical of those produced by *W. vigil* although no larvae were identified. It was the following year that the parasite was so prevalent in Minnesota. In 1931, 1932 and 1933 only a few cases were reported in Canada although in August and September of 1933 the incidence of the disease increased, and then as already stated an alarming number of cases occurred in southern Ontario during the spring and summer of 1934. Since 1931 there has been no doubt that the infections have been caused by *W. vigil* as the larvae have been kept until they developed into flies or else

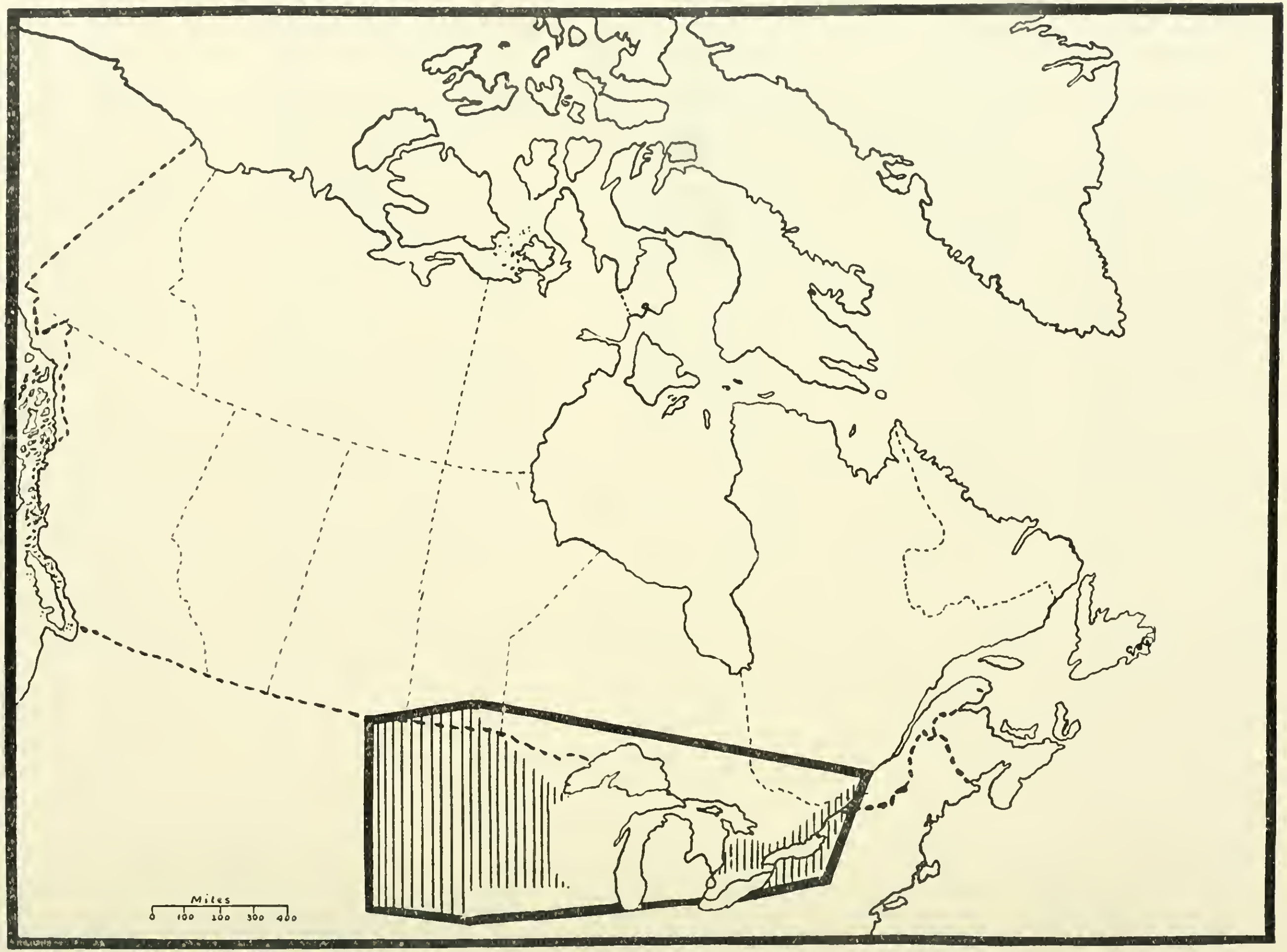

FIG.—1. NORTHERN SECTION NEARCTIC REGION. The shaded portions of the map indicate the areas in which *Wohlfahrtia vigil* has caused cutaneous myiasis in man and animals. (Based on case reports 1926-1934) (Original)

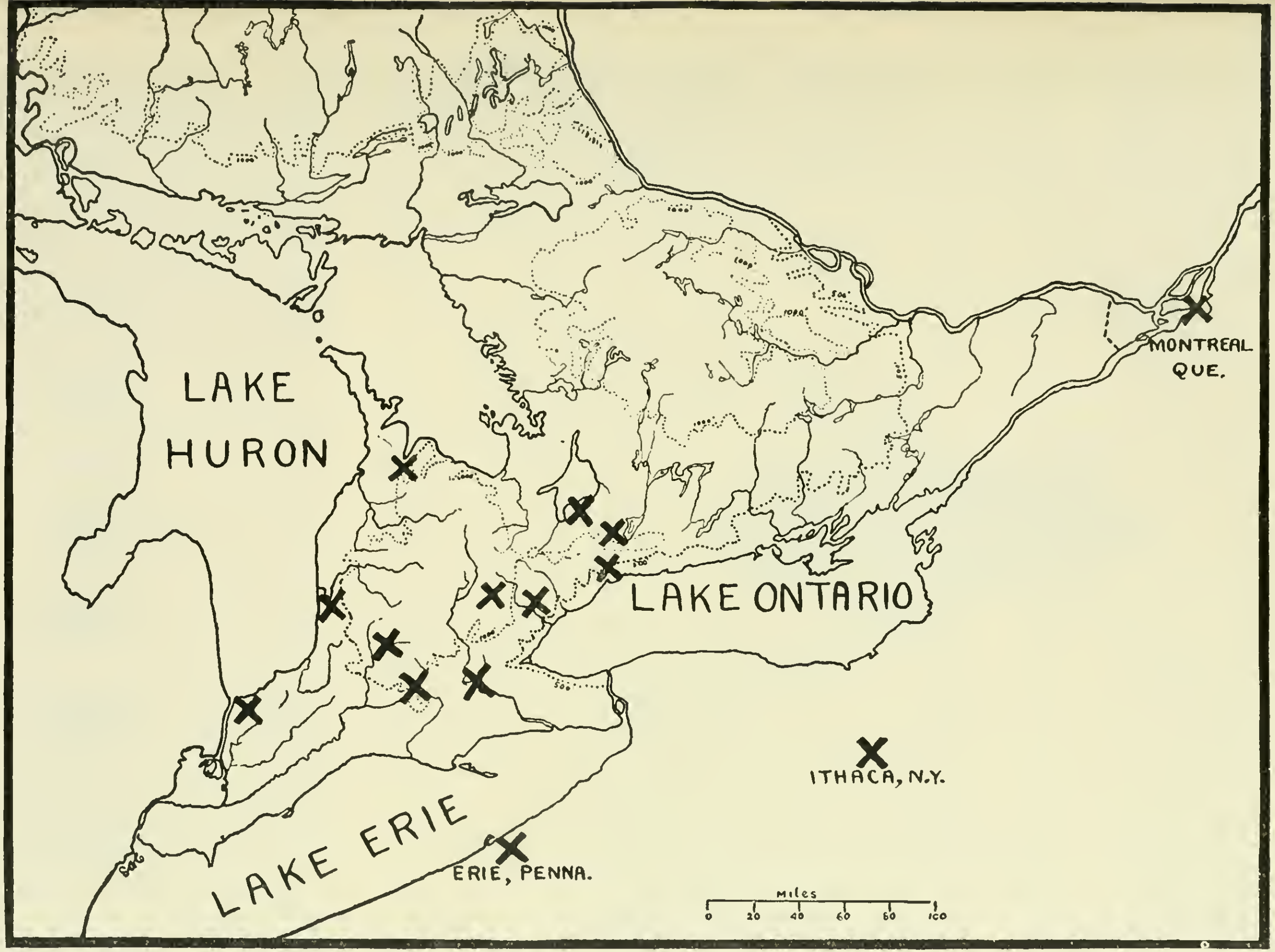
LAKE HURON
LAKE ONTARIO
LAKE ERIE
MONTREAL QUE.
ITHACA, N.Y.
ERIE, PENNA.
Miles
0 20 40 60 80 100

FIG.—2. MAP OF SOUTHERN ONTARIO. The crosses indicate the localities in which *Wohlfahrtia vigil* has caused numerous cases of cutaneous myiasis in man and animals. Three points where the disease has occured outside Ontario are also shown. (Original).

were preserved and identified by Dr. E. M. Walker of the University of Toronto.

Occurrence—Although the adult flies have been recorded from the New England states to Alaska (Walker, 1931) all records of myiasis produced by their larvae are from eastern sections of Canada and the adjoining north-eastern parts of the United States. The area in which all such cases of infection have been recorded extends roughly from the 43rd parallel of latitude to the 50th and from the 74th to the 104th parallels of longitude. The furthest southern record is from Erie, Pennsylvania; the northern from Winnipeg, Manitoba; the eastern from Montreal, Quebec; and the western from the Dakotas.

There are, however, two areas where by far the majority of cases have occurred, namely in Minnesota and the adjoining Dakotas and in southern Ontario.

In southern Ontario some two hundred cases have been recorded from children and animals at the points indicated in Fig. 2. The majority of these cases have been confined to a strip of territory which may be marked on the map by drawing one line from Bayfield to Toronto and another from Sarnia through Brantford to the shore of Lake Ontario. North of this belt a few cases have been reported from Port Perry, Jackson's Point and Owen Sound; and south of the belt on the opposite shore of Lake Erie (Erie, Pennsylvania).

A fact which may or may not be of significance is that the premises upon which infection has occurred have in nearly all instances been within a few rods of railway tracks. This is suggestive that the flies are disseminated through the country along such routes either while resting upon moving trains or merely through a natural tendency to follow the cleared areas along the grades. In support of the former possibility certain species of tsetse flies have been observed to collect in considerable numbers upon the rear end of railway coaches; the habit, in fact, has attracted so much attention that high voltage electric traps have been attached to the carriages and large numbers of the flies destroyed. It has also been considered that faecal matter dropped from passenger trains attracted *W. vigil* but laboratory experiments and observations made along miles of railway tracks, in vicinities where the flies existed, offered no support to this supposition. *W. vigil*, unlike other species of flies to which it is closely related, is not attracted to the stools of man or animals.

Beside the incidence of the disease in the vicinity of railway tracks, it has also been observed that infected premises are often only a few rods from rivers or lake shores. Such bodies of water, like railway tracks, offer the open spaces along or over which the flies may have a natural tendency to travel.

Infection with the larvae of *W. vigil* may occur at any time from the beginning of June until the end of September. By far the majority of records are for June and the first two weeks in July. Infants and young animals become infected when left exposed in the open, or the latter (mink and foxes especially) in their nest boxes during the nursing period of their lives. Most of the cases in children, mink and ferrets have occurred in June, while dog, cat and rabbit records have been for July, August and September. The fact that mink are not susceptible to infection after the middle of July, is because all litters arrive in the early spring and after midsummer the young animals are able to protect themselves against the fly.

Etiology—The form of cutaneous myiasis under discussion is caused by infection with the larvae of *W. vigil*. The fly is about 13mm. (½") in length

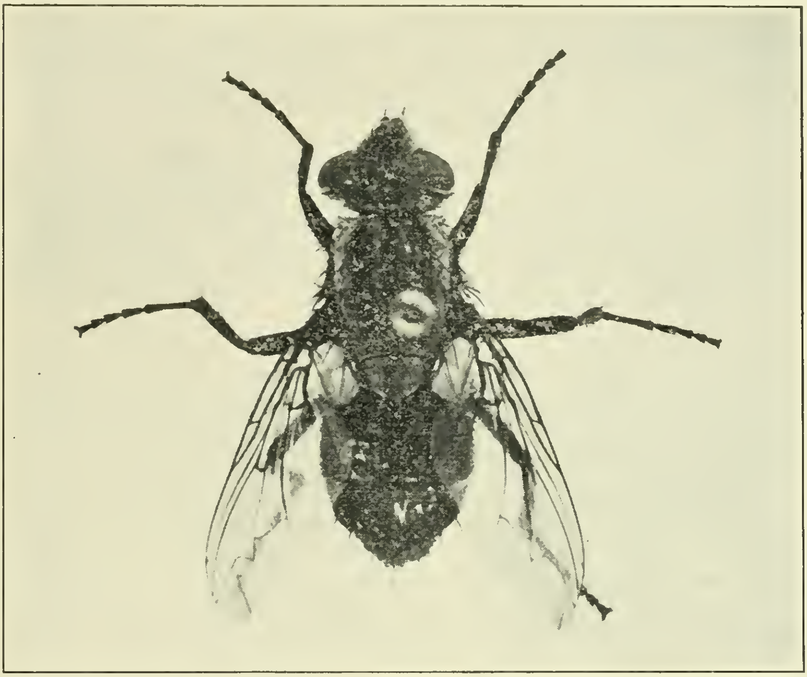

FIG. 3.—*Wohlfahrtia vigil* (Walker). The fly whose larvae cause cutaneous myiasis in children and young animals. (Original).

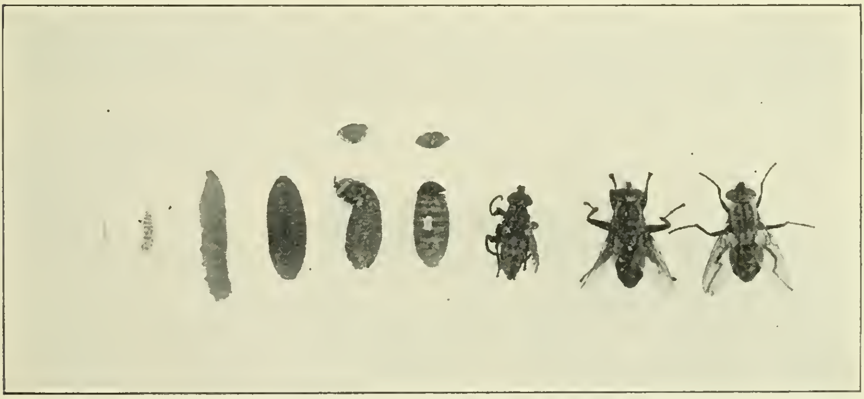

FIG. 4—*Wohlfahrtia vigil* (Walker). Larval, pupal and adult stages. The photographs illustrate all stages in the life cycle. (Original).

and about twice the size of the common house fly. The dorsal surface of the thorax is marked with three dark longitudinal bands, and the dorsal surface of the abdomen with three well-defined rows of oval black spots which are confluent with one another. The arista (small branches of the antennae) are bare, not plumose. The flies are illustrated in Figs. 3 and 4. Males and females show little dimorphism. The former may be distinguished by their stouter and more "hairy" legs.

The female flies are oviparous or oviviviparous, usually the latter, and deposit eggs or larvae upon suitable hosts.

The larvae are at first between 1 and 2 mm. in length but rapidly increase in size. In three or four days, sometimes longer, they attain the maximum size which may reach 20 mm. They resemble the maggots of other flesh and blow flies; they are provided with two mouth hooks and the posterior end (rounded) bears the two spiracles which are situated in a deep pit. They are illustrated in Figs. 4 and 8.

The larval development is completed usually in from nine to fourteen days. At this time the parasite leaves the tissue of the host, or if the latter has succumbed to the infection the larvae complete their growth within the carcass often leaving their position in the subcutaneous tissues to enter the body cavities. In either case they eventually become quite inactive and in due course pupate.

The pupation period usually lasts from eleven to eighteen days; the variation corresponding with temperature and season of the year. When, however, the cold weather approaches (September) the pupation period is greatly prolonged, and under laboratory conditions has been observed to last seven months. It is apparently in this form that the parasite survives the winter months.

Male and female flies emerge from their puparia and about three or four days later mate. About a week later the female flies commence to larviposit. They usually deposit from ten to sixteen larvae at a time. Often after a flow of larvae several eggs are deposited, from which larvae generally emerge within a few hours. Under experimental conditions mating and larviposition are repeated intermittantly over a period of a month or longer. The female flies usually live from thirty-five to forty days; Ford (1932) records 53 days for the period of longevity in the case of one female. The males survive seldom more than three weeks.

The entire life cycle may be completed in thirty-one days during warm weather, or may be prolonged to two hundred and forty-six days when commenced in the fall of the year. During the spring and summer months a number of generations are produced, and during these months successive broods of larvae are deposited upon and parasitize living animals.

Teleology—There is much evidence to suggest that parasitism in the case of *W. vigil* may be a comparatively recently acquired habit. The fly is closely related to other flesh flies (Sarcophaginae); some of these species deposit their eggs or larvae in carrion, others on purulent wounds or sores, or at times in faeces. *W. vigil* is the only species for which all records of infection are upon the bodies of healthy animals. The larvae have never been found in carrion (Walker, 1931) but under experimental conditions the fly will larviposit upon fresh or putrid meat. If, however, living animals are placed in the same cage the female flies will choose such in preference to the meat. In cases when the host animal dies the larvae are able to complete their development within the carcass. Walker (1931) suggested that the parasitic habit was probably abnormal on account of the small size of the spines of the larval skin. These facts taken collectively suggest that a transitional stage has been reached between a saprozoic and parasitic existence and that the fly is more inclined to be a specific rather than a semi-specific myiasis-producing species at least in the shaded areas of the Nearctic Region illustrated in Fig. 1. Outside these areas nothing is apparently known regarding the larval stages of *W. vigil*.

The development of the parasitic habit in *W. vigil* may possibly be similar to that of the "wool-maggots" in Australia and incited under somewhat similar circumstances. Irrespective as to whether *W. vigil*, has in the past, spent its larval stages in carrion or upon wild animals, since the coming of the white race to eastern Canada and the northeastern United States both carrion and wild animal life have become increasingly scarce. Under such circumstances, the fly, in order to perpetuate its species, has been forced to seek an unusual medium upon which to larviposit, and has found the thin skin and delicate tissues of infants and young domestic animals a suitable substitute for its larvae (anatomically not well adapted to a parasitic existence) to develop upon. The habit at first one of necessity, or perhaps of accident, has become after successive generations one of instinct.

Infection—Infection follows the deposition of larvae upon the unbroken skin of infants or young animals. The maggots during the first stage of their life tend to wander over the surface of the body. They eventually penetrate the integument and come to rest in the underlying subcutaneous tissues. Generally each individual larva penetrates the skin independently. It is not uncommon, however, to find from two to four or even as many as seven larvae together. On one occasion four minute larvae were observed to meet and working actively together made a single opening into which they all disappeared.

Flies in captivity will drop living larvae on the bottom of the cage when no animals or meat are supplied for them to larviposit upon. Such larvae will wander about and will exist a few hours without food or moisture. In the abscence of the latter, especially, they soon, however, perish. This habit is of some significance as it indicates that screening against flies may not necessarily prevent infection, as larvae dropped within a reasonable distance of young animals, either through or near screens may eventually reach and infect the host.

Case records show that it is usual for all animals in a litter to be infected. In mink ranches where the disease occurs enzootically 45 per cent. of the kittens have been infected in such cases where ranch records were kept. (The percentage is estimated from the extent of infection in 305 kittens).

Susceptibility—Susceptibility to infection exists in children under one year of age (usually under five months) and in thin-skinned young animals which during the first weeks of their postnatal life are blind and comparatively helpless. All such creatures are unable to protect themselves against the fly. An analysis of some two hundred definite cases of *W. vigil* infection is summarized as follows:—

Host	Number of Cases	Percentage
Mink	149	74.5
Man	20	10.0
Dog	20	10.0
Cat	4	2.0
Ferret	4	2.0
Rabbit	2	1.0
Fox	1	0.5

That man and animals over a few weeks of age are usually not susceptible to infection has ample evidence in its support. In nearly all instances of mink infestations nursing mothers have shared the same nest boxes with their infected young and yet themselves have remained free from infection. Both Ford (1932) and the writer have exposed themselves to infection but the larvae were unable to penetrate the skin of adult human beings.

Only three cases in adult animals have been recorded, and these all mustelid animals in which the skin is comparatively thin. Single larvae were found in the head and back of a ferret and mink respectively; and a number of larvae in the mammae of a lactating ferret. Thus 98.5 per cent. of the case records are from young animals and only 1.5 per cent. from adults.

Pathogenesis—The penetration of the skin by the larvae, their subsequent development in the subcutaneous tissues and secondary bacterial infection (usually Staphylococcus) cause intense irritation and inflammation of the tissues. Attempts on the part of the host to remove the larvae or relieve the irritation aggravates the condition. The infection causes a slight elevation of temperature, and the constant irritation, loss of rest and appetite, result in progressive emaciation and in the case of young animals, not infrequently, death from exhaustion.

Ford (1932) suggests that it is possible toxic secretions or excretions from dead or living larvae may be absorbed and aggravate the condition, but also points out that after removal of the larvae recovery is rapid, which supports the view that the irritation and inflammation of the skin and subcutaneous tissues are the chief pathological factors.

Anatomical Changes—The first indication of infection in animals is an exudation of serum and matting of the fur or hair over the site of larval penetration. In light skinned animals a small inflammatory area is noticeable in the centre or to one side of which a minute opening is at times visible. As the lesions develop they may be felt by passing the hand over the body. Usually on the third or fourth day (sometimes later) the larvae attain a length of from 15 to 20 mm. and produce abscess-like lesions resembling miniature "warble grub lumps" of cattle. These lesions vary in shape and size depending on the age, position and number of larvae present in each. They are usually from 1 to 2 cm. in diameter. The hair often becomes parted over the summit of the lesions and reveals an opening generally 2 or 3 mm. in diameter. The posterior extremities of the maggots are presented to these openings through which they breathe. Such openings are usually quite circular and well-defined (Fig. 8) but when several larvae are present in a single lesion the shape of such appertures is extremely variable (Fig. 9).

Systemic changes vary with the age and species of the host and with the number of larvae causing the infection. In small animals infected with five or more larvae for several days, the bodies become emaciated, the skin dry and the fur or hair possesses little lustre.

Walker (1931) describes the lesions as they appear in children as follows:—"Small abscess-like lesions develop most commonly on the neck, chest, shoulders and arms, but eruptions have also been observed on the eyelids, cheek, palm and navel. Each lesion shows as a red, raised indurated mass measuring from one-quarter to one-half inch in diameter. The small opening at the apex of the lesion is so strongly suggestive, in appearance, of pus, that on superficial examination a group of lesions might readily be considered impetigo; in fact, the diagnosis of impetigo was made erroneously in at least one of the cases

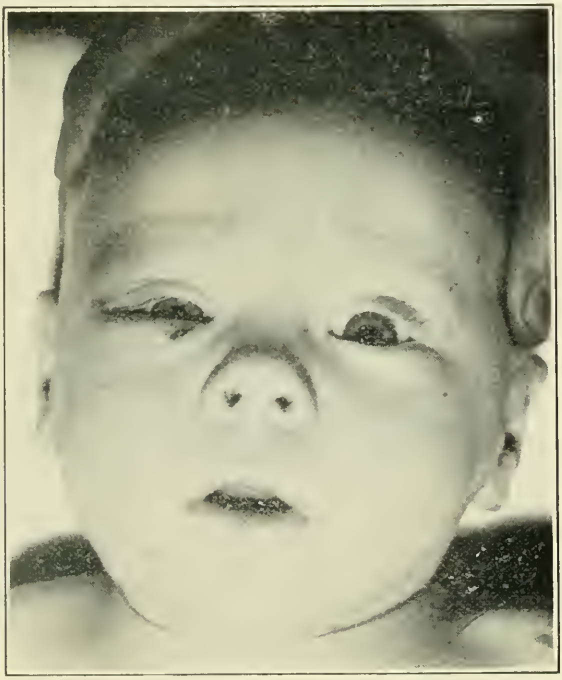

FIG. 5.—Cutaneous myiasis caused by infection with the larvae of *Wohlfahrtia vigil* (Walker). (Photograph by Courtesy of Sick Children's Hospital, Toronto).

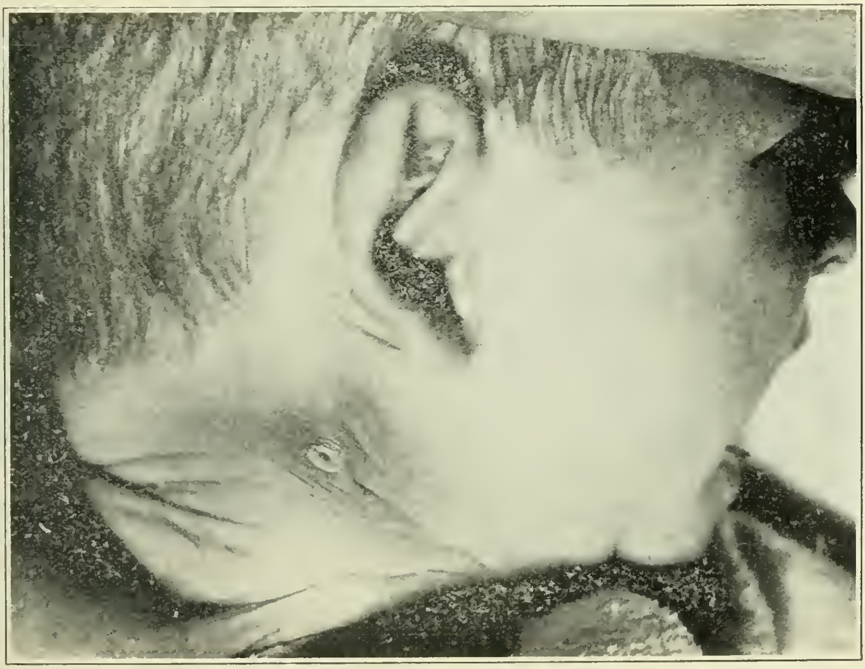

FIG. 6.—Cutaneous myiasis caused by infection with the larvae of *Wohlfahrtia vigil* (Walker). (Photograph by Courtesy of Sick Children's Hospital, Toronto).

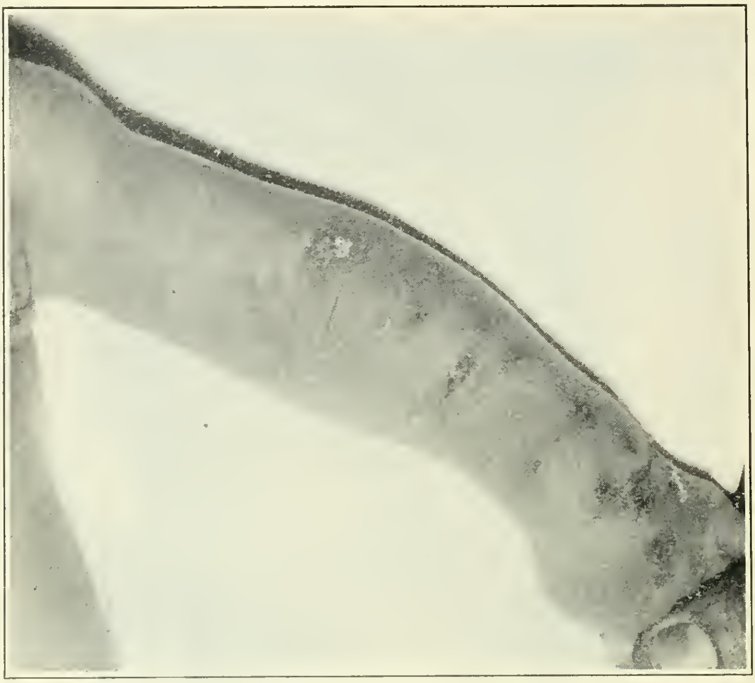

FIG. 7.—Cutaneous myiasis caused by infection with the larvae of *Wohlfahrtia vigil* (Walker). (Photograph by Courtesy of Sick Children's Hospital, Toronto).

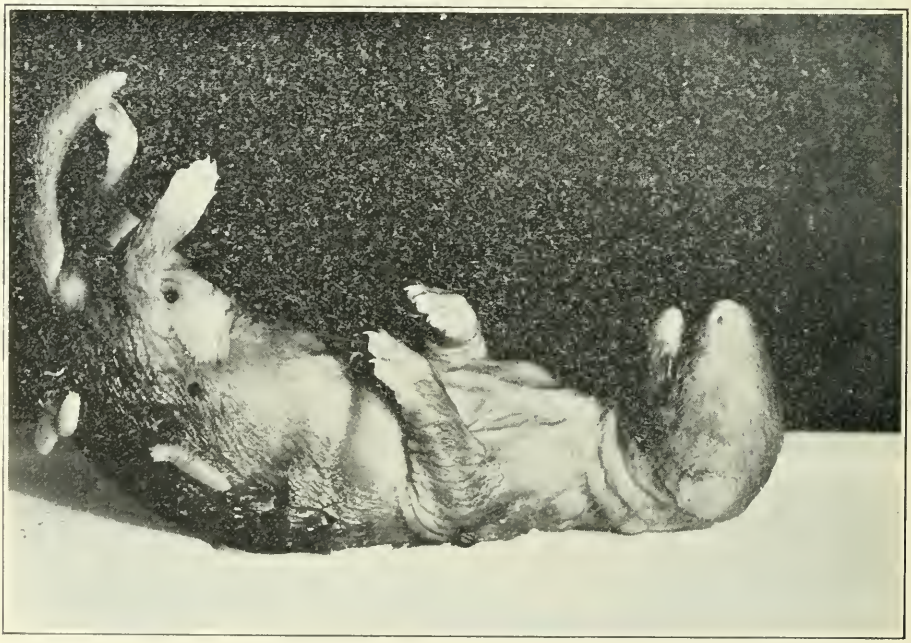

FIG. 8.—Cutaneous myiasis caused by infection with the larvae of *Wohlfahrtia vigil* (Walker). Some of the larvae are shown on the body of the young mink which died from the infection. (Original).

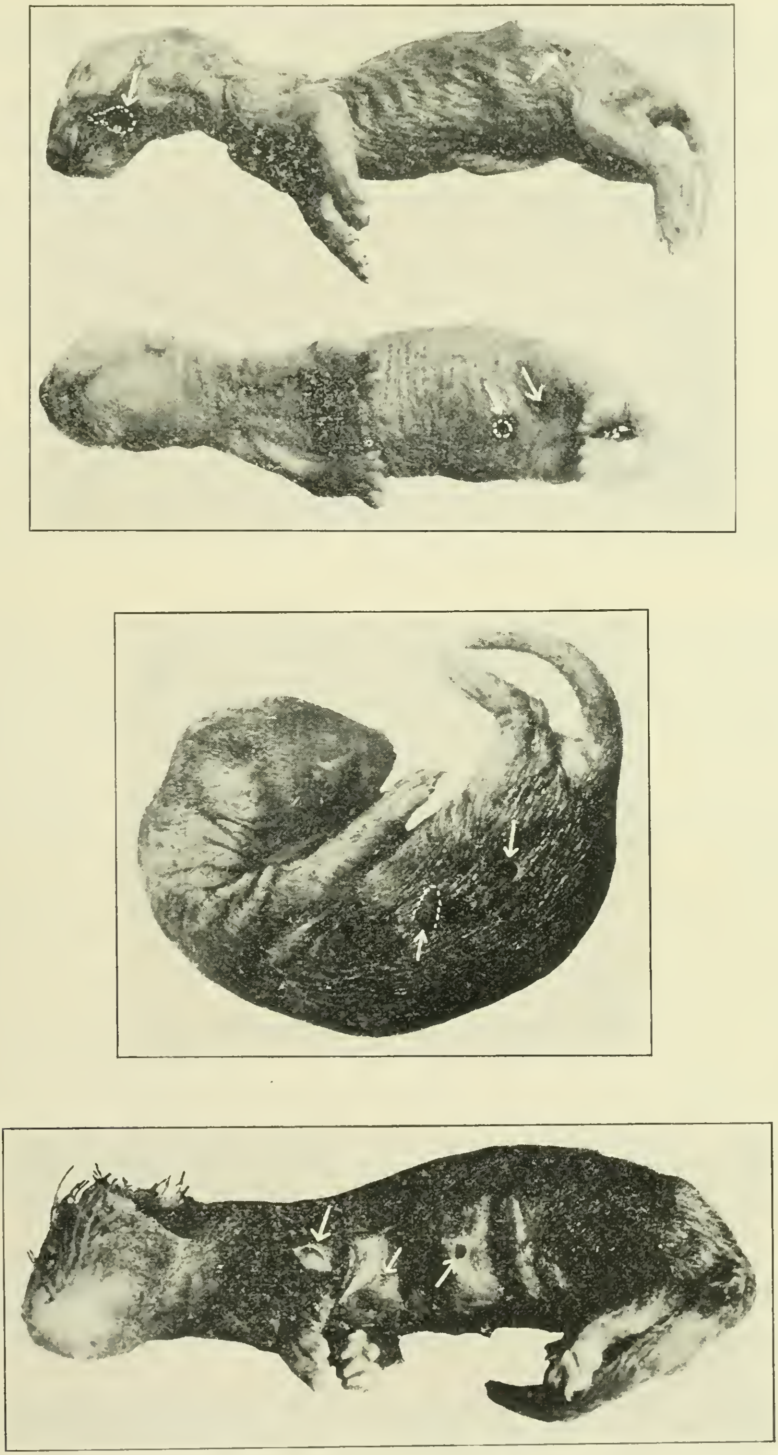

FIG. 9.—Cutaneous myiasis caused by infection with the larvae of *Wohlfahrtia vigil* (Walker). The arrows point to some of the lesions. The two upper individuals are ferrets, the lower mink. (Original).

recorded. On closer examination it is readily seen that what appeared to be pus, is in reality the posterior end of the larvae. This may be seen to be moving, being extruded and withdrawn; if pressure is exerted the larval body may be forced out. It can be seen to work its way by a wriggling movement along the skin surface. In most cases about twelve or fourteen of these lesions were present, each with an external opening, and each containing one or more larvae. In the most recent case at Toronto (1931) at least five larvae were removed through a single opening, and in another Toronto case (1930) about forty lesions were present on the body from some of which four and five larvae were taken."

In animals the site upon the body where the lesions occur is extremely variable. In mustelid animals (mink and ferrets) larvae have been removed from nearly every part of the body including the feet and commisure of the mouth. The majority of lesions are found in the posterior half of the body, usually over the thighs or in the inguinal region.

The lesions in dogs, cats and rabbits have been commonly located upon the head, often between the eyes. It appears that in these animals, when between six and seven weeks of age, that the hair on the body is well developed and that the head is the most suitable part to attack (26 cases considered). The one exception to this rule was an infection in a dog (1934) in which instance twelve lesions were confined to the back.

Symptoms—The attempts of the fly to deposit her larvae and their subsequent wandering over the body cause annoyance to the host. As soon as the larvae commence to penetrate the skin young animals become extremely restless, their crying is pitiable and they constantly roll and toss about. Once the larvae are established in the subcutaneous tissue the host becomes more calm, but not until the former are removed or leave the body to pupate do the animals behave normally again. They manifest constant irritation by their cries and restlessness and loss of appetite. Their temperature becomes slightly elevated, the bodies dehydrated and emaciated and they may finally succumb through exhaustion.

Among mink, the female will often carry her infected young out of the den and leave them to die in the pen. At other times they are cared for until dead and the bodies then removd from the nest boxes. This is often the first indication that the disease exists in a ranch.

The symptoms in children seldom pass unnoticed for any length of time and the disease is not given the opportunity to run its full course as it is in the case of animals. Ford (1932) states that infected infants are usually in a pitiable condition which was described to her in the following words by Dr. N. McKinnon:—"An infant, two weeks old, had about 40 lesions scattered over the body, arms and face especially the eyelids. For approximately 24 hours it was extremely irritable, crying and refusing its feedings. It had a slight fever, was dehydrated and looked sick."

Course and Prognosis—The course of the disease varies depending upon the species of animal infected, its age, and the number and location of the larvae. In very small animals from five to twenty larvae will cause death usually within about ten days.

The two ferrets illustrated in Fig. 9 were infected shortly after birth and succumbed at the age of three days. In this case, however, the mammae of their dam were infested with maggots and the animal was too ill to care for or feed her young. One of the latter, too, had a large lesion on the cheek which made nursing impossible.

There are no records of mortality in mink which have become infected when over five weeks of age, and no fatal cases recorded for dogs, cats, rabbits or foxes.

In young mink and ferrets which were infected during the first five weeks of their life and which received no treatment the death rate has been 100 per cent. (69 cases). In other cases in which the larvae have been removed and the wounds disinfected the mortality has only been 1.25 per cent. (80 cases). The pelts of fur-bearing animals have shown no visible marks when they have been removed several months after infection.

In all cases of infection in children, dogs, cats, rabbits and foxes the patients have recovered rapidly after removal of the larvae.

Diagnosis—The occurrence of matted fur and boil-like lesions with their characteristic circular openings, appearing on young animals from June to September, each lesion containing one or more maggots, is almost diagnostic in itself, so characteristic are the lesions produced by the larvae of *W. vigil.*

The disease must, however, be differentiated from other forms of myiasis caused by larvae of flies belonging to the genera Sarcophaga (flesh flies), Lucilia (green bottles), Chrysomyia (screw-worm flies), Cuterebra (dog, cat and rabbit bot flies) and from other species of Wohlfahrtia.

Unlike *W. vigil* most of these flies do not deposit their eggs or larvae upon the unbroken skin but upon sores and running wounds or in the natural openings of the body. The Cuterebra are an exception; their larvae, however, may be easily recognized by their stoutness and well-developed spines (they resemble the horse bot fly larva); the lesions they produce are generally on the head or throat.

The larvae of Lucilia, usually only cause myiasis in sick animals, they do not form boil-like lesions and often migrate in large numbers under the skin, sometimes for considerable distances from the point of penetration. They may also penetrate the natural openings of the body and even gain access to the body cavities.

Other species of Wohlfahrtia and the Chrysomyia are encountered in the warmer parts of the world. The latter approach close to the southern boundary of the zone in which *W. vigil* has caused numerous cases of myiasis; but they have only been occasionally encountered further north.

A definite diagnosis of *W. vigil* infection can only be based upon identification of the larvae. Some of these should be saved, preserved in 70 per cent. alcohol or 4 per cent. formulin and forwarded to an entomologist. Or as an alternative the larvae after removal kept in a jar and raised to the fly stage which is the most easy to identify.

In one vicinity secondary infection occurred with the larvae of the flesh fly *Sarcophaga haemorrhoidalis.* These were found in lesions upon young mink from which a few days previously larvae of *W. vigil* had been removed. (75 larvae of *S. haemorrhoidalis* were removed and raised to the imago stage).

Treatment—As soon as lesions are recognized in any species of animal the larvae should be removed through the openings by squeezing or careful extraction with forceps. The wounds should be treated with a non-irritating antiseptic. In mink, areas near matted fur should be examined closely as when they are present even small larvae may be removed in the above manner.

Once the disease is found to exist in minkeries, (where it may cause heavy losses), the kittens should be examined at least every other day from the first week in June to the second in July. It is true this may entail a great deal of labour, especially on a large ranch, but it has proven the most effective method of eliminating casualties. As an example two cases may be cited. In the first 240 mink kittens were examined on alternate days. An average of ten maggots were removed from eighty individual kittens. As a result of the infestation and handling of the animals only one death occurred. In the second case the owner of the ranch feared to examine the young animals in case the females, being disturbed, would neglect their young. There were a total of 65 kittens 27 of which succumbed to *W. vigil* infection. The average number of larvae in this instance was approximately 12 per kitten.

When the timely removal of the larvae is practiced the mortality due to *W. vigil* infection may be reduced to less than one per cent.

Prophylaxis—The prevention of infection is by no means an easy matter as it necessitates complete protection by screening against the adult fly. It is, in many cases, not practical to do this especially in connection with dogs and cats. The practice of sanitation and hygiene, although desirable, will not eliminate the prevalence of the fly, as this species (Ford, 1932) is not attracted by filth or unwholesome odours like other flesh and blow flies, but on the contrary is an insect of extremely cleanly habits.

The prevention of the disease in minkeries, however, is a matter of considerable economical importance, not only on account of the extensive infections which may occur and the high death rate, but owing to the labour which is involved in repeatedly examining and treating the kittens. In one of the cases previously cited the examination of 240 animals on alternate days occupied the full working hours of one man for the greater part of six weeks. Prophylactic measures have been studied and considered chiefly in regard to preventing the disease in minkeries. Methods of preventing infection will of necessity vary with the types and numbers of houses or pens on a ranch. The amount of expenditure which is justifiable upon screens must be carefully considered; the initial outlay will be the chief expense.

Screening—The most satisfactory type of mink house to screen is that illustrated in Fig. 10. The house was erected at the Eperimental Fur Farm at Kirkfield, Ontario. It contains twenty-eight pens under cover. There is a screen door at each end of the house and a passage way through the centre of the building between the two "double-deck" rows of pens. The windows in the gables on either side of the roof are permanently screened. With a minimum amount of expense and labour the house may be made entirely fly proof by placing removable screens in position over the outside openings of the pens along either side of the building; or a strip of wire or cloth fly gauze may be run down the length of the house and held in position with strips of wood tacked in place along the top, bottom and ends of the strip of screen. Dr. R. G. Law, in a personal communication to the writer comments on this design of house as follows:—"With the new type of mink house that we have constructed here this year (1934) the screening out of flies would be a very simple matter. It is very easy to re-construct the average type of mink house on the system of our new house. We are constructing two of our old ones on this principle as we find it much more satisfactory from every point of view."

The mink ranches in which the animals are enclosed in exposed individual pens of variable sizes present another problem. It is, in fact, not practical to attempt screening of such pens. It is recommended, that in such cases, the

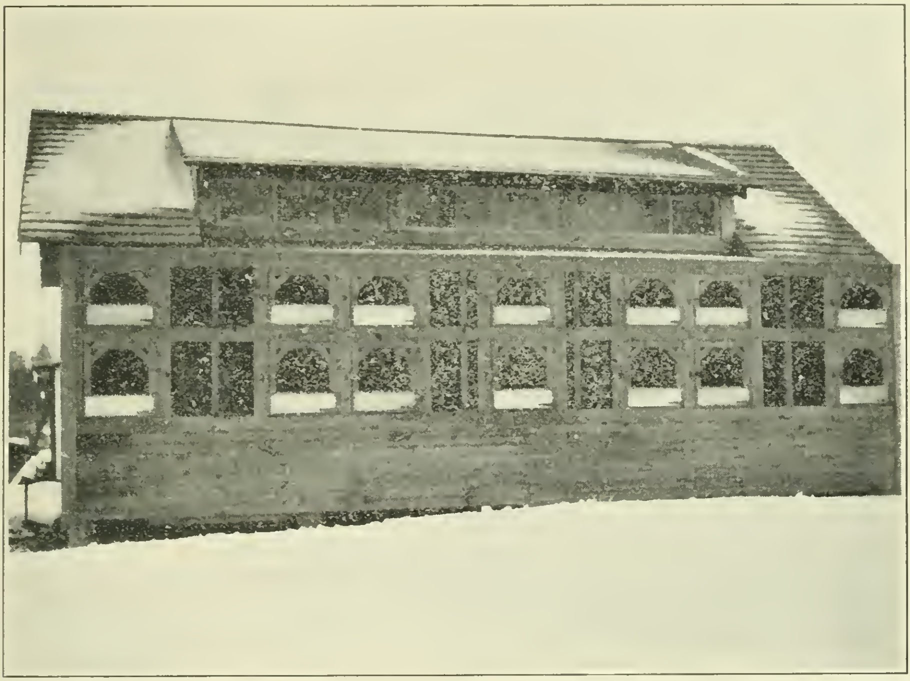

FIG. 10.—A design of mink house which may be screened with minimum expense and labour to exclude *Wohlfahrtia vigil* and other flies. (Photograph by Courtesy of Experimental Fur Farm, Kirkfield, Ont.)

lids of the boxes be made as fly tight as possible. The most simple method to accomplish this is to make removable frames covered with fly gauze that will fit inside the nest boxes just underneath the permanent weather-proof lids. Such frames may be supported on wooden cleats attached a suitable distance just below the upper edges of the boxes. All ventilation holes should be screened with fly gauze held in place with wooden strips. Cracks and knot holes should be filled with putty or other suitable material. These recommendations are made because it appears that the flies have gained entrance to the nest boxes through such apertures. The openings by which the animals gain entrance into their dens must also be made as fly proof as possible. This is most readily accomplished by attaching a shute about a foot long. Such a shute is made of half-inch lumber and the free end is cut at an angle of forty-five degrees; the short side being the uppermost. A medium weight galvanized metal door is made to fit over the opening. This is attached to the top of the shute by a hinge (soldered to the metal and screwed into the wood). The lower end of the door is rolled outward so that it forms a cylinder about half an inch in diameter. At least half an inch space must be allowed between the rolled lower edge of the door and the ground to permit the animals to live the former with their noses which they soon learn to do. Such a door drags over the backs of the animals as they enter the shute and automatically closes by its own weight; it is equally easy for the animals to open the door when they leave the den. Pieces of canvas cut in strips have also been tried out in some ranches. A few of the more destructively inclined females tore these to pieces but they were easily replaced over the openings. It is not likely that such canvas strips will keep all flies out of the dens. Numerous other ingenious devices have been suggested to protect the openings; such to be efficient must be easily and cheaply constructed, cause no danger of the animals becoming jammed or hurt and at the same time be fly tight. Observations made upon the flies in cages showed that when the females are ready to larviposit they become entirely obscessed with the one aim to reach a suitable medium upon which to deposit their larvae. They lose all sense of fear and are indifferent to their environment during this period, and will, in fact, risk injury or death to gain access to a young animal. It is therefore necessary to make the dens as fly proof as possible and overlook no openings.

Darkened Nest Boxes—Experiments were made to ascertain if darkened nest boxes approached by various types of shutes were of any practical use in preventing infection. It was observed that flies kept in cages spent the greater part of their time on the sides facing the windows of the laboratory; when the cages were turned the flies always moved towards the light. The first experiments were made in two nest boxes connected by a cylindrical shute a foot long and four inches in diameter; each of the two boxes was provided with glass and heavy cloth covers. Flies, food and water placed in one box and after the insects had become settled the box was darkened. In a short time all the flies passed through the shute into the light box at the other end. The boxes were alternately darkened three times a day on four successive days and the flies invariably found their way into the light box and on no occasion returned to the darkened box. Food and water were then left in the darkened box for several days. None of the flies entered and apparently starved to death rather than enter the shute into the darkened nest box to obtain nourishment. Most of these flies were males and no matings were observed; the experiment, therefore, only indicated that adult flies would not enter a darkened nest box. The flies in this instance had for two days been kept under unfavourable conditions as they emerged from their puparia in transit through Saskatchewan and Alberta and were not properly cared for until Vancouver Island was reached, which may account for their failure to breed.

Further experiments were subsequently conducted in Ontario. A variety of shutes were attached to mink nest boxes, but in all cases, as soon as the flies were ready to larviposit, they would enter the shutes, pass apertures through which light shone (T-shaped shutes), make right angle turns in order to reach living animals in the nest boxes from which all light was excluded. On the other hand, the female flies proved equally indifferent to light. On one occasion they attempted to larviposit in the full glare of electric flood lights which were directed upon them while their activities were being recorded with a moving picture camera.

Insecticides—Insecticides have been considered among the prophylactic measures which may be applied to single pen units which it is not practical to screen or make fly proof in other ways. These to be effective must either kill the flies upon contact after they enter the boxes, or the larvae when they contact the powder in the fur or upon the skin of animals prior to their penetration into the subcutaneous tissues; at the same time such insect powders must be harmless to nursing animals. Experimentally, light dusting of Pulvex and pyrethrum powder killed the flies.

At the time when the nest boxes are being packed with straw or hay, prior to the arrival of the young animals, it is suggested that a liberal amount of any commercial insect powder (which is guaranteed to be harmless to warm blooded animals) be thoroughly mixed with the litter and sprinkled in shutes when present. A further quantity of the insecticide may be added from time to time during June and July. Such a powder would tend to automatically accumulate in the fur and upon the skin of young animals.

The true value of insecticides can only be established when it has been tried out in a number of nest boxes.

Traps—The placing of suitable fly traps about ranches is another precaution which may be taken. In one experiment all flies (30) in a cage were caught, within a period of twenty-four hours, in one of the common wire gauze traps of the "safety ink-pot" type. The opening in the trap had been enlarged to permit the passage of a fly the size of *W. vigil*. The trap was baited with brown sugar and no other food was available within the cage. The conditions were by no means comparable to those in the open ranch; but the experiment proved that such traps will catch *W. vigil* as well as other flies. Brown sugar or jam are recommended as suitable baits. The observations of Ford (1932) and those of the writer during the past two years indicate that *W. vigil* is only attracted to sugar, honey, fruit syrups, fruit, and flowers of such a structure that the proboscis of the fly can reach the nectar. The fly takes no interest in filthy material as a source of food supply.

Traps consisting in part of a large hanging screen may prove effective in catching *W. vigil*. Such traps have been used in Africa and have proved successful in trapping tsetse flies. The traps are easily made with factory cotton and wooden laths; one has already been made at the college and will be put to test at the first opportunity. *W. vigil*, like the tsetse fly, often rests on vertical screens and from time to time moves upwards towards the top of the screens. The trap proper is situated on top of the screen, and the flies through their natural tendency to travel upwards eventually enter it. Should actual experiments in the field prove this trap an effective means of catching *W. vigil* the details of its structure will be described in a further report.

Irrespective of how effective traps may prove under actual ranch condition in catching *W. vigil* their use is to be recommended, as in cases where numbers of home made traps have been placed at strategic points the fly population about such ranches has been considerably decreased. Each specimen of *W. vigil* which may be caught in such traps may prevent several cases of cutaneous myiasis occurring in the ranch.

Poisons—An inexpensive and safe fly poison is composed of from 5 to 10 per cent. formalin. Under experimental conditions *W. vigil* will drink the liquid and shortly afterwards die. It is suggested that pint or quart jars be filled with the formalin solution and inverted in shallow dishes (on the principle of the automatic poultry drinking fountain). A number of these poison reservoirs may be placed near the pens in positions where they are not likely to be upset. Sugar and milk may be added to the formalin but it is not necessary and tends to prevent the flow of the fluid from the reservoir into the pan. Such liquid poisons are most effective when other supplies of water are scarce.

Repellants—Commercial fly repellants may be sprayed over the framework wire and nest boxes. They must be repeatedly applied to be effective. It is questionable if they will entirley repel *W. vigil*, but they will make pens so treated less attractive to the flies in general. Care should be taken not to spray the food and drinking water of the animals.

Summary—(1) Cutaneous myiasis due to infection with the larvae of *W. vigil* appears to be on the increase.

(2) The disease occurs in Eastern Canada and the northeastern States. It has been especially prevalent in Southern Ontario during the year 1934.

(3) Children and young mink, ferrets, dogs, cats, foxes and rabbits may become infected from the beginning of June until the end of September. Adult animals are seldom infected.

(4) The fly deposits the larvae upon the unbroken skin. They develop rapidly in the subcutaneous tissues and give rise to boil-like lesions. In young animals the death rate is high.

(5) Rapid recovery follows the removal of the larvae and dressing of the wounds.

(6) Prevention is only practical in minkeries and to be effective necessitates the complete screening of the houses. In single pen units the incidence of the disease may be reduced by making the nest boxes as fly tight as possible and by using insecticides, traps, poisons and repellants about the ranch.

ACKNOWLEDGMENT

Sincere acknowledgment is made for the assistance, information or material received from Dr. Walker and Dr. Ford, Department of Biology, University of Toronto; Dr. Hanson, Fur Animal Experiment Farm, Saratoga Springs, N.Y.; Dr. Law, Experimental Fur Farm, Kirkfield, Ont.; Dr. Riley, Division of Entomology and Economic Zoology, University of Minnesota; Dr. Brown, Professor of Paediatrics, Sick Children's Hospital, Toronto, Ont.; Prof. Baker and Mr. Wilkes, Department of Entomology and Mr. Tolton, Extension Department, Ontario Agricultural College, Guelph; Dr. Secord and Dr. MacDonald, Toronto, Ont.; Mr. Ryan, Erie, Penn.; Mr. Martin, St. Mary's, Ont.; Mr. Waters, Milton West, Ont.; Mr. Fleming, Owen Sound, Ont.; Mr. Crow, Denver, Colorado, and to all others whose help has made it possible to summarize the existing facts concerning the parasitism and distribution of *W. vigil.*

ADDENDA

Since writing the above report further information has been received regarding the occurrence of heavy infestations in the mid-western States, several isolated cases in fitch, and a case record of the disease occurring in October.

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FOURTEENTH
ANNUAL REPORT
OF THE
MINIMUM WAGE BOARD
PROVINCE OF ONTARIO
1934

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER NO. 31, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

TO THE HONOURABLE HERBERT ALEXANDER BRUCE,
M.D., R.A.M.C., F.R.C.S., (Eng.)
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I beg to present herewith for your consideration the fourteenth annual report of the Ontario Minimum Wage Board.

Respectfully submitted,

A. W. ROEBUCK,
Minister of Labour.

March 6th, 1935.

THE HONOURABLE A. W. ROEBUCK,
Minister of Labour,
Parliament Buildings, Toronto.

Sir:

I have the honour to submit herewith the fourteenth Annual Report of the Ontario Minimum Wage Board.

Yours faithfully,

A. W. CRAWFORD,
Chairman.

ANNUAL REPORT—1934

MINIMUM WAGE BOARD

Activities under the Minimum Wage Act during the past year may be summarized as follows: the Act was amended; the personnel of the Board was changed; the staff was enlarged; and a more intensive effort was made to enforce the Orders in all sections of the Province.

AMENDMENTS TO ACT—1934.

At the last session of the Legislature, the Minimum Wage Act was amended to provide for the limitation of the number of hours per week for which the minimum wage shall be paid; to provide for part-time and overtime employment; to prohibit the replacement of women by men receiving less than the prescribed rates; to safeguard employees from being dismissed because of making complaint to the Board; and to increase penalties.

The Act now provides that the minimum weekly wage must be paid for a period of not more than 48 hours in municipalities having a population of more than 50,000; for 50 hours in places of from 10,000 to 50,000; and for not more than 54 hours in places under 10,000 population.

This fixing of the maximum hours for which the minimum wage must be paid does not in any way affect the period for which female workers may be employed, but it does prevent employers from working girls and women for longer periods than those prescribed without paying more than the minimum weekly wage.

CHANGES IN PERSONNEL.

The increasing volume of work during the past few years necessitated increases in staff which had been taken care of by co-operation between the Board and the inspection services of the Department of Labour, but, at the close of the past year, arrangements were made to transfer four men and five clerical workers to the staff of the Board and during the year, two members were added from without the Public Service.

The staff now consists of an auditor, a special investigator, three inspectors, a secretary and nine stenographic and clerical workers. In addition to this full-time staff, the Board is ably assisted in its investigations by the factory inspectors and apprenticeship inspectors of the Labour Department. Very close co-operation is maintained with the Department in all matters affecting the Board.

The organization of the work has been changed, so that the Chairman and one member of the Board are now employed full time in its activities.

Mr. R. A. Stapells, who had been a member of the Board since its inception and who became chairman after the death of Dr. J. W. MacMillan in April 1932, resigned immediately following the provincial elections. The resignation was accepted on July 17th and A. W. Crawford, Deputy Minister of Labour, became Acting Chairman. On August 23rd, 1934, this appointment was confirmed, and Mr. D. W. Markham of Toronto was appointed to replace Mr. H. G. Fester, who had been on the Board from the beginning.

At the close of the year the Board consisted of Miss M. Stephen, Messrs. D. W. Markham and A. W. Crawford. Miss Stephen has been a member since the beginning, representing employees. For the past year and a half she has devoted full time to the work of the Board, receiving and adjusting complaints, and making special investigations in connection with living conditions and the employment of women and girls in industry.

Since preparing this report we have suffered a severe shock and sustained a great loss in the death of Mr. Markham, who, with his wife, was killed in the disastrous train wreck at Dundas, Ontario, on Christmas night. Mr. Markham had faithfully and effectively served on the Board without remuneration and had always exhibited a keen interest in the welfare of employees combined with a sense of fairness and fitness which made it a pleasure to be associated with him. The Board will miss him more than we can express and the Government has lost a loyal and capable commisioner.

On January 28th, 1935, Mr. Patterson Farmer of Toronto was appointed to fill the vacancy.

SUMMARY OF ACTIVITIES.

During the period November 1st, 1933, to October 1st, 1934, there were 64 court prosecutions which were dealt with as follows:

7 cases dismissed.

30 cases withdrawn—arrears paid before date of trial.

24 cases completed—fines paid $1,075.00.

1 case judgment reserved.

1 case warrant issued for arrest.

1 case remanded.

Complaints were received during the year from 790 persons, most of whom were the employees concerned. As a result of prosecutions, investigations and complaints during the year, the Board collected arrears of wages from 664 employers for 1,601 girls and women, amounting to $51,932.88.

Wage sheets were obtained from 6,035 employers throughout the Province, showing the time worked and actual wages paid to 77,648 female employees during a specified four weeks period. Ordinarily these returns are submitted once each year covering a period when the plant is fairly busy, but it sometimes occurs that the returns are obtained during a slack period in one year and at an exceptionally busy period the following year, so that the figures showing the number of employees and wages paid do not represent average conditions throughout the year, but are merely samples taken for the purpose of determining whether the Minimum Wage Regulations are being complied with. Wherever these wage returns reveal underpayments or where there is reason to believe that the returns are inaccurate or incomplete, additional returns are required and, if necessary, the books and payrolls are audited by a representative of the Board. These returns for the past year revealed underpayments in 771 firms affecting approximately 1,000 employees, whose wages were adjusted as a result of the Board's activity. It is impossible to estimate the amount of the increases in wages resulting from such action, but it is known that, in addition to the firms referred to above, there were many others who voluntarily made adjustments before submitting returns to the Board.

The number of permits granted to employers, authorizing them to pay certain employees less than the prescribed minimum rates, was reduced from 159 at the beginning of the year to 66 on October 31st, 1934. A few of these permits were issued to meet temporary conditions in an establishment but practically all of those now in effect cover individuals who, because of physical or mental disabilities, are unable to earn the established minimum wages.

The sudden growth in the work of the Board may be attributed directly to economic depression. During the past three years employers have adopted the practice of reducing wage rates and actual hours of employment until, in many instances, the minimum rates fixed by the Board have become the prevailing rates and the short time worked has resulted in weekly earnings below the amount necessary to maintain a decent standard of living. Consequently the Board has been faced with the necessity of either enforcing the Act more vigorously or permitting an ever increasing number of violations, which in a short time would render this protective legislation useless insofar as the workers are concerned, and a source of annoyance and unfair competition to the honest and conscientious employers. Backed by the Government, the Board has chosen the first alternative and is making a sincere effort to maintain the minimum wages for all female employees despite the increasing tendency to regard the minimum fixed by law as a fair rate of wages.

PROBLEMS OF ADMINISTRATION.

The difficulties of administering any Act increase in almost direct proportion to the need for the legislation. Judging on this basis, it is evident that the need for a Minimum Wage Act is very great at present. It is also becoming increasingly apparent that many of the difficulties encountered in enforcing the Act are due to misunderstanding and lack of information on the part of employers, employees and others concerned.

It does not appear to be generally known that the only employees not entitled to the protection of the Act are domestic servants and farm labourers. It is difficult to determine what employees are included in these two classifications but the Board has ruled that only female employees in private residences and those working on farms, whether as domestics or in any other capacity, are exempt.

The difficulties of enforcing the orders and provisions of the Act are greatly increased by the fact that women and girls refrain from making complaints or charges until they have been dismissed and then it becomes a matter of the complainant's word against that of the employer, especially where records are not kept.

Many devices are resorted to by some unscrupulous employers to defeat the purpose of the Act and, too frequently, employees are parties to such actions either deliberately or through fear of losing their jobs. This fear of unemployment is a natural weakness which cannot be easily overcome under existing conditions but which must be eliminated if protective legislation of the type of the Minimum Wage Act is to be effectively administered during times of depression.

Fortunately, the great majority of employers in industrial and commercial establishments are fair-minded men, anxious to treat their employees well and to abide by the law. Violations in such cases are due to ignorance of the law, failure to keep accurate records, and most frequently, to failure to use available records as periodic checks on the payroll. Employers who object to keeping the required records fail to realize that these records are their protection in case of complaints by employees or investigation by the Board.

There is a general lack of information regarding the minimum wage rates fixed by Orders of the Board. The fact that over forty orders have been issued during the past fourteen years, leads to confusion. This multiplicity of orders is due to the practice of calling conferences in each industry or class of employment before orders are issued and endeavouring to meet the peculiar needs of each industry. In effect, however, the minimum rates for experienced adults are fairly uniform throughout the Province, being based on the cost of living, which varies according to the population of the municipality or place of residence. With certain exceptions, the rates for experienced adult workers are as follows:

1.	Toronto	$12.50 for a maximum weekly work period of 48 hours, or 26c per hour.
2.	Hamilton, Ottawa, London, Windsor, and places over 50,000 population	$12.00 for a maximum weekly work period of 48 hours, or 25c per hour. (Factories $11.50).
3.	Places having populations of from 10,000 to 50,000 inclusive	$11.00 for a maximum weekly work period of 50 hours, or 22c per hour. (Factories 5,000 to 50,000 population).
4.	4,000 to 10,000 population	$10.00 for a maximum weekly work period of 54 hours, or 18.5c per hour.
5.	Under 4,000 population	$9.00 for a maximum weekly work period of 54 hours, or 16.5c per hour.

In all cases the minimum weekly wage must be paid for the number of hours regularly worked in the establishment, if less than the maximum work period prescribed, and the hourly rate depends upon the weekly work period in vogue.

Lower rates are prescribed for beginners, and permits may be granted by the Board exempting handicapped workers.

The foregoing rates and population groups do not apply to all industries or occupations, but are sufficiently accurate to indicate the general scale for female employees with one year's experience. Anyone desiring specific information should communicate direct with the Board or see a copy of the Order affecting the specified class of employment. Copies of Orders must be posted in every place of employment.

Considerable criticism has been received regarding the difference in rates between large cities and small towns, especially from industries which are spread throughout the Province and where the individual plants compete for business both domestic and export. It is claimed that the differential is too great and places an unfair handicap on the employer whose plant is situated in a large centre. On the other hand, many employers contend that the differential should be even greater since it is based on the cost of living. Board and lodging are cheaper in the small centres and employees do not require money for car fare, extra lunches, and more expensive clothing necessitated by travel to and from the place of employment, and the higher standards in the shops and offices of big cities. These matters are receiving the consideration of the Board with a view to making whatever adjustments may be warranted.

The Board is also taking steps to amend some of the existing orders to correct certain weaknesses which have become apparent as the scope of the orders have been increased. Conferences are being held with representatives of employers and employees in the hope that the number of orders may be reduced and greater uniformity attained throughout the Province in all industries and occupational groups.

Wage Sheet Analyses.

The following comparative statistics for 1933 and 1934 indicate the wage rates for the female employees actually employed in different branches of industrial and commercial employment. The figures given do not represent the actual earnings of employees but show clearly what the rates of wages were for the four weeks period covered by the wage sheets submitted to the Board. The figures representing the average hours worked per week are the average figures for all establishments reporting under each population group and indicate the number of hours per week worked in these establishments when operating full-time. Many plants were operating part-time with reduced staffs when the returns were submitted. These figures clearly indicate the tendency of the minimum rates to become the prevailing rates and show a slight decrease in rates of wages during the past year. The figures in each case represent the wages paid after adjustments were made to conform with the orders of the Board.

ORDERS NOS. 6 AND 10

RETAIL STORES—RETURNS FOR OCTOBER 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of stores reporting	358	497	236	353	381	610	230	248	1,205	1,708
Total No. female employees	1,613	2,126	2,544	2,760	2,486	3,047	582	604	7,225	8,537
Over 18 years	1,568	2,070	2,470	2,645	2,367	2,915	559	580	6,964	8,110
Under 18 years	45	56	74	115	119	132	23	24	261	327
Average hours worked per week (normally)	47.5	48.9	54.6	47.8	50.1	50.	56.4	51.7		
Weekly rate of wages:										
Under $7.00					2	4	17	14		
7- 8					41	43	33	29		
8- 9	3	6	23	37	37	60	67	92		
9-10	4	1	21	39	282	413	178	180		
10-11	115	177	186	203	402	425	123	116		
11-12	77	106	110	116	853	1,081	39	38		
12-13	565	836	1,331	1,464	373	474	66	64		
13-15	397	431	444	497	241	269	26	41		
15-18	297	364	257	233	167	179	23	23		
Over $18.00	155	205	172	171	88	99	10	7		
	1,613	2,126	2,544	2,760	2,486	3,047	582	604		

ORDERS NOS. 11 AND 12

TELEPHONE EXCHANGES—RETURNS FOR OCTOBER 1934

	Toronto 1934	Other cities over 50,000 1934	10,000-50,000 1934	4,000-10,000 1934	Under 4,000 1934	Totals
No. of firms reporting	1	4	23	31	108	167
Total No. female employees	637	863	641	271	368	2,780
Average hours worked per week (normally)	48	48	46.7	48		
Weekly rate of wages:						
Under $7.00						
7- 8						
8- 9				3		
9-10			9	3		
10-11			12	42		
11-12		23	55	37		
12-13		27	125	42		
13-15		410	152	100		
15-18	92	301	245	20		
Over $18.00	545	102	43	24		
	637	863	641	271		

ORDERS NOS. 13, 14, 15 AND 16

TEXTILE TRADES—RETURNS FOR APRIL 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	53	55	23	27	66	70	56	58	198	210
Total No. female employees	1,946	2,592	3,099	3.504	5,177	5,421	2,090	2,580	12,312	14,097
Over 18 years	1,868	2,491	3,035	3,396	4,776	4,942	1,921	2,346	11,600	13,175
Under 18 years	78	101	64	108	401	479	169	234	712	922
Average hours worked per week (normally)	45.4	46.7	51.5	48.4	51.2	51.2	50.2	52.5		
Hourly rate of wages:										
Under 12 cts.						8		22		
12-18	12	38	65	61	307	302	275	278		
18-20	40	73	182	106	378	353	230	304		
20-22	54	113	166	174	459	595	478	508		
22-24	138	100	429	186	1,399	1,385	288	321		
24-26	140	134	501	759	734	898	222	226		
26-28	596	412	512	671	630	620	257	274		
28-36	575	1,446	1,063	1,233	1,057	1,024	306	504		
36-up	391	276	181	314	213	236	34	143		
	1,946	2,592	3,099	3,504	5,177	5,421	2,090	2,580		

ORDERS NOS. 17, 18, 19 AND 20

NEEDLE TRADES—RETURNS FOR MAY 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	456	505	73	79	52	65	20	16	601	665
Total No. female employees	7,154	7,516	568	665	1,409	2,182	197	151	9,328	10,514
Over 18 years	7,027	7,308	561	651	1,347	2,040	187	138	9,122	10,137
Under 18 years	127	208	7	14	62	142	10	13	206	377
Average hours worked per week (normally)	44.06	44.4	44.4	46.9	45.7	49.4	47.3	48.6		
Hourly rate of wages:										
Under 12 cts.		3		4		18		1		
12-16	27	18	13	7	42	113	19	46		
16-18	54	75	15	10	57	76	13	19		
18-20	143	116	35	22	68	202		21		
20-22	163	189	33	62	113	215	21	11		
22-24		294	47	53	105	379	58	19		
24-26	604	367	114	111	375	248	31	16		
26-28	431	644		77	219	253	22	3		
28-36	4,443	3,863	224	188	257	540	30	11		
36-up	1,289	1,947	92	131	173	138	3	4		
	7,154	7,516	568	665	1,409	2,182	197	151		

ORDERS NOS. 21, 22, 23 AND 24

DRUG AND CHEMICAL FACTORIES

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	88	80	27	22	20	22	6	6	141	130
Total No. female employees	732	741	213	195	232	220	100	101	1,277	1,257
Over 18 years	692	714	209	192	227	217	99	101	1,227	1,224
Under 18 years	40	27	4	3	5	3	1		50	33
Average hours worked per week (normally)	43.8	44.0	42.2	44.5	46.8	43.	45.	45.		
Hourly rate of wages:										
Under 12 cts.										
12-16						2				
16-18		2					1	2		
18-20	16	6		2	2	5	7	9		
20-22	13	17		9	29	9	9	31		
22-24	44	44	3	6	27	10	37	37		
24-26			14	38	66	64	21	5		
26-28	32	141	76	68	17	42	7	6		
28-36	516	409	69	51	74	44	13	10		
36-up	111	122	51	21	17	44	5	1		
	732	741	213	195	232	220	100	101		

ORDERS NOS. 25 AND 26

OFFICES

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000	
	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	552	885	187	298	257	641	99	224
Total No. female employees	9,513	9,335	2,106	2,564	1,158	2,755	528	803
Over 18 years	9,446	9,268	2,097	2,559	1,152	2,751	524	801
Under 18 years	67	67	9	5	6	4	4	2
Average hours worked per week (normally)	44.2	42.2	45.8	43.5	47.9	44.	46.6	46.2
Weekly rate of wages:								
Under $7.00							2	10
7- 8						7	3	11
8- 9	3	18	3	2	9	23	12	30
9-10	16	44	3	23	26	54	20	60
10-11	132	144	40	56	62	166	46	101
11-12	84	213	60	96	124	351	38	68
12-13	1,225	934	230	292	128	340	51	77
13-15	1,514	2,069	244	489	174	447	70	117
15-18	3,376	2,416	587	601	253	597	111	150
18-up	3,163	3,497	939	1,005	382	770	175	179
	9,513	9,335	2,106	2,564	1,158	2,755	528	803

ORDER NO. 27

HOTELS, RESTAURANTS AND REFRESHMENT ROOMS

	Toronto		Other cities over 50,000		10,000-50,000		4,000 to 10,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	252	309	125	131	190	302	150	146	717	888
Total No. female employees	2,590	2,992	648	825	831	1,154	449	485	4,518	5,456
Over 18 years	2,575	2,969	643	822	822	1,149	437	482	4,477	5,422
Under 18 years	15	23	5	3	9	5	12	3	41	34
Average hours worked per week (normally)	49.5	43.8	49.6	47.4	47.5	48.9	50.4	50.6		
Hourly rate of wages:										
Under 12 cts.										
12-16										
16-18										
18-20										
20-22						1	141	268		
22-24	1				2	691	134	94		
24-26	814		423	445	472	167	68	37		
26-28	616	1,748	89	166	134	111	45	38		
28-36	941	871	117	166	195	156	48	37		
36-up	218	373	19	48	28	28	13	11		
	2,590	2,992	648	825	831	1,154	449	485		

ORDER NO. 28

LEATHER TRADE

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	38	49	6	6	26	33	19	16	89	104
Total No. female employees	541	621	229	189	661	843	575	456	2,006	2,109
Over 18 years	481	572	210	183	591	755	506	412	1,788	1,922
Under 18 years	60	49	19	6	70	88	69	44	218	187
Average hours worked per week (normally)	45.8	45.5	48.1	47.9	48.6	49.	49.2	45.9		
Hourly rate of wages:										
Under 12 cts.										
12-16			4		30	23	62	30		
16-18		11	13	4	22	37	51	26		
18-20	49	32	33	2	63	42	59	67		
20-22	16	38	10	10	50	61	142	75		
22-24	51	35	26	11	106	134	41	35		
24-26	19	38	18	33	60	98	51	65		
26-28	169	117	12	15	68	94	42	37		
28-36	172	297	46	63	181	239	88	90		
36-up	65	53	67	51	81	115	39	31		
	541	621	229	189	661	843	575	456		

ORDER NO. 29

DEPARTMENT STORES

	1933	1934
No. of stores reporting	2	2
Total No. female employees	3,567	3,680
Over 18 years	3,417	3,511
Under 18 years	150	169
Average hours worked per week (normally)	48.	48.
Weekly rate of wages:		
Under $7.00		
7- 8	6	7
8- 9	48	50
9-10	51	54
10-11	136	181
11-12	42	90
12-13	1,392	1,137
13-15	1,121	982
15-18	559	819
18-up	212	360
Total	3,567	3,680

ORDER NO. 30

ELECTRIC TRADE—RETURNS FOR JUNE 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	32	28	9	11	9	11	7	7	57	57
Total No. female employees	719	770	508	613	251	277	216	241	1,694	1,901
Over 18 years	706	746	502	603	247	261	196	216	1,651	1,826
Under 18 years	13	24	6	10	4	16	20	25	43	75
Average hours worked per week (normally)	46.3	41.5	47.9	48.2	48.4	49.	46.5	50.		
Hourly rate of wages:										
Under 12 cts.										
12-16						1		1		
16-18					2	10	2	5		
18-20	1	2	16	1	8	13	9	10		
20-22	5	3	39	8	21	20	74	49		
22-24	16	15		80	82	41	65	85		
24-26	91	76	346	310	63	45	19	47		
26-28	187	86		93	27	38	24	22		
28-36	322	519	90	81	39	94	22	22		
36-up	97	69	17	40	9	15	1			
	719	770	508	613	251	277	216	241		

ORDER NO. 31

LAUNDRY TRADE—RETURNS FOR JULY 1934

	Toronto		Other cities over 50,000		Under 50,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	83	91	69	65	92	93	244	249
Total No. female employees	1,396	1,498	673	642	490	524	2,559	2,664
Over 18 years	1,345	1,450	648	619	466	493	2,459	2,562
Under 18 years	51	48	25	23	24	31	100	102
Average hours worked per week (normally)	47.8	46.5	48.	48.	48.	48.7		
Hourly rate of wages:								
Under 12 cts.								
12-16			9	5	10	11		
16-18			6	6	1	25		
18-20	8	33	1	6	9	30		
20-22	28	47	31	29	46	82		
22-24		26	27	12	268	213		
24-26	32	63		364		82		
26-28	941	1,004	448	118	61	27		
28-36	351	248	120	83	73	41		
36-up	36	77	31	19	22	13		
	1,396	1,498	673	642	490	524		

ORDER NO. 34

FOOD TRADE—RETURNS FOR APRIL 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	121	118	57	52	46	43	35	28	259	241
Total No. female employees	2,527	2,762	780	948	630	684	386	304	4,323	4,698
Over 18 years	2,399	2,629	733	897	573	618	356	287	4.061	4,431
Under 18 years	128	123	47	51	57	66	30	17	262	257
Average hours worked per week (normally)	47.8	47.4	48.1	46.8	48.6	49.7	50.7	51.		
Hourly rate of wages:										
Under 12 cts.								6		
12-16		1			6	21	3	19		
16-18		24	10	14	34	27	15	20		
18-20	59	48	36	49	48	77	12	25		
20-22	29	93	44	242	82	87	72	60		
22-24	206	158	199	63	276	323	101	65		
24-26	134	283		244	69	83	144	84		
26-28	1,158	992	193	125	27	31	4	11		
28-36	663	1,035	283	81	61	31	27	9		
36-up	278	128	15	130	27	4	8	5		
	2,527	2,762	780	948	630	684	386	304		

ORDER NO. 35

MISCELLANEOUS TRADES—RETURNS FOR JUNE 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	153	155	69	57	91	96	70	55	383	363
Total No. female employees	1,458	1,489	689	749	1,161	1,446	873	633	4,181	4,317
Over 18 years	1,389	1,409	671	726	1,099	1,318	828	617	3,987	4,070
Under 18 years	69	80	18	23	62	128	45	16	194	247
Average hours worked per week(normally)	45.4	45.8	46.8	47.2	47.7	47.3	48.7	49.		
Hourly rate of wages:										
Under 12 cts.										
12-16		6		1	16	67	34	25		
16-18	1	19	6	5	26	35	95	23		
18-20	29	28	10	18	88	79	82	106		
20-22	19	37	38	94			248	171		
22-24	173	106	39	71	160	536	107	58		
24-26	82	173	201	209	380	210	65	41		
26-28	530	374	120	74	164	154	53	44		
28-36	342	602	201	223	280	299	170	123		
36-up	282	144	74	54	47	66	19	42		
	1,458	1,489	689	749	1,161	1,446	873	633		

ORDER NO. 36

TOBACCO TRADE—RETURNS FOR NOVEMBER AND DECEMBER 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	7	7	4	5	1	1		8	12	21
Total No. female employees	360	319	258	367	169	205		960	787	1,851
Over 18 years	353	306	255	352	165	205		954	773	1,817
Under 18 years	7	13	3	15	4			6	14	34
Average hours worked per week (normally)	45.9	44.9	44.5	45.	50.	48.		48.		
Hourly rate of wages:										
Under 12 cts.								40		
12-16					7	7		59		
16-18		7	2	1	19	5		51		
18-20	2	4	1	6	29	16		104		
20-22	1	22	5	11	22	7		105		
22-24	94	20	55	32	32	30		101		
24-26	19	6	121	110	19	30		239		
26-28	53	19		74	10	38		200		
28-36	139	85	69	88	27	53		58		
36-up	52	156	5	45	4	19		3		
	360	319	258	367	169	205		960		

ORDER NO. 37

RUBBER TRADE—RETURNS FOR AUGUST 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	7	6	1	1	9	10	4	3	21	20
Total No. female employees	331	389	57	84	1,232	1,207	93	33	1,713	1,713
Over 18 years	327	383	57	84	1,150	1,106	87	30	1,621	1,603
Under 18 years	4	6			82	101	6	3	92	110
Average hours worked per week (normally)	44.2	45.8	40.	44.	49.	47.	45.6	51.		
Weekly rate of wages:										
Under 12 cts.										
12-16					32	17	2			
16-18					52	8		2		
18-20	1		1		96	70	13	11		
20-22	2	4	5		165	51	5	2		
22-24	29	3			421	184	9	1		
24-26		7		8	230	182	17	1		
26-28	5	63		10	114	258	13	3		
28-36	287	234	46	65	115	394	27	11		
36-up	7	78	5	1	7	43	7	2		
	331	389	57	84	1,232	1,207	93	33		

ORDER NO. 38

JEWELLERY TRADE—RETURNS FOR JULY 1934

	Toronto		Other cities over 50,000		Under 50,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	16	16	6	4	9	8	31	28
Total No. female employees	135	139	24	18	85	100	244	257
Over 18 years	130	129	23	18	84	96	237	243
Under 18 years	5	10	1		1	4	7	14
Average hours worked per week (normally)	44.7	44.4	44.2	41.5	47.6	50.1		
Hourly rate of wages:								
Under 12 cts.								
12-16					1	3		
16-18	2				1	1		
18-20		2	2		4	5		
20-22	9	10	2			9		
22-24	11	8	2	1	5	34		
24-26	6	13	5		38	6		
26-28	32	43		1	11	11		
28-36	58	50	10	11	23	25		
36-up	17	13	3	5	2	6		
	135	139	24	18	85	100		

ORDER NO. 39

PAPER TRADE—RETURNS FOR APRIL 1934

	Toronto		Other cities over 50,000		5,000-50,000		Under 5,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	194	173	68	61	75	75	55	49	392	358
Total No. female employees	2,108	1,947	1,335	901	615	586	281	199	4,339	3,633
Over 18 years	2,055	1,882	1,040	883	602	571	275	196	3,972	3,532
Under 18 years of age	53	65	295	18	13	15	6	3	367	101
Average hours worked per week (normally)	45.6	46.3	45.7	45.8	47.5	46.8	47.3	47.2		
Hourly rate of wages:										
Under 12 cts.										
12-16					5	1	2	2		
16-18	3	35	1	9	7	9	2	3		
18-20	25	46	268	21		26		8		
20-22	47	68	58	27	16	27	16	29		
22-24	108	57	60	158	30	138	58	18		
24-26	68	76	289	195	179	151	45	39		
26-28	541	413	197	62	98	84	45	33		
28-36	693	906	337	361	211	104	92	55		
36-up	623	346	125	68	69	46	21	12		
	2,108	1,947	1,335	901	615	586	281	199		

ORDERS NOS. 41 AND 45

MILLINERY TRADE—RETURNS FOR AUGUST AND SEPTEMBER 1934

	Toronto		Other cities over 50,000		4,000-50,000		Totals	
	1933	1934	1933	1934	1933	1934	1933	1934
No. of firms reporting	37	45	38	30	36	34	111	109
Total No. female employees	256	276	94	67	78	72	428	415
Over 18 years	248	260	92	65	78	72	418	397
Under 18 years	8	16	2	2			10	18
Average hours worked per week (normally)	47.5	46.9	48.6	47.9	48.9	49.		
Hourly rate of wages:								
Under 12 cts.						2		
12-16	9	15	4		5	3		
16-18	5	6	1			1		
18-20		9	1		2	2		
20-22	3	6	2	2	8	4		
22-24	8	3	2	2	5	12		
24-26	1	5	36	26	15	7		
26-28	55	24	9	7	6	6		
28-36	121	126	27	20	20	23		
36-up	54	82	12	10	17	12		
	256	276	94	67	78	72		

ORDER NO. 42

HAIRDRESSING AND BEAUTY PARLORS—RETURNS FOR JUNE AND SEPTEMBER 1934

	Toronto		Other cities over 50,000		Totals	
	1933	1934	1933	1934	1933	1934
No. of firms reporting	88	176	47	54	135	230
Total No. female employees	375	534	105	114	480	648
Over 18 years	367	228	104	114	471	342
Under 18 years	8	6	1		9	6
Average hours worked per week (normally)	47.1	45.5	47.5	47.		
Hourly rate of wages:						
Under 12 cts.		5				
12-16	9	19	2	3		
16-18		20	4	7		
18-20	19	13		1		
20-22	3	10	6	5		
22-24	17	18	2	1		
24-26	1	27	37	24		
26-28	103	178		17		
28-36	104	127	6	23		
36-up	119	127	48	33		
	375	534	105	114		

ORDER NO. 47

CANNERS—RETURNS FOR OCTOBER 1934

	Cities over 50,000 1934	5,000-50,000 1934	2,000-5,000 1934	Under 2,000 1934	Totals 1934
No. of firms reporting	1	13	17	39	70
Total No. female employees	79	541	487	1,213	2,320
Over 18 years and under 60 years	79	513	473	1,194	2,259
Under 18 years and over 60 years		28	14	19	61
Hourly rate of wages:					
Under 12 cts.				5	
12-16		18		70	
16-18		6	14	35	
18-20		54		773	
20-22		37	444	87	
22-24	79	382	15	130	
24-26		30	7	32	
26-28		6	5	27	
28-36		8	2	52	
36-up				2	
	79	541	487	1,213	

All of which is respectfully submitted.

A. W. CRAWFORD,
Chairman.

MARGARET STEPHEN.

J. PATTERSON FARMER.

ANNUAL REPORTS

OF THE

Department of Highways

ONTARIO

1933-34

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 32, 1934

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

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TO THE HONOURABLE HERBERT ALEXANDER BRUCE,
M.D., R.A.M.C., F.R.C.S. (Eng.).
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I herewith beg to present for your consideration the Report of the Department of Highways, relating to Highway Improvement in the Province of Ontario during the year 1933 and 1934.

Respectfully submitted,

T. B. MCQUESTEN,
Minister of Highways.

Department of Highways,
Toronto, March 18th, 1935.

To The Honourable T. B. McQuesten,
Minister of Highways, Ontario.

Sir:—We have the honour to submit herewith our Report on the Department of Highway's activities for the year 1933 and 1934.

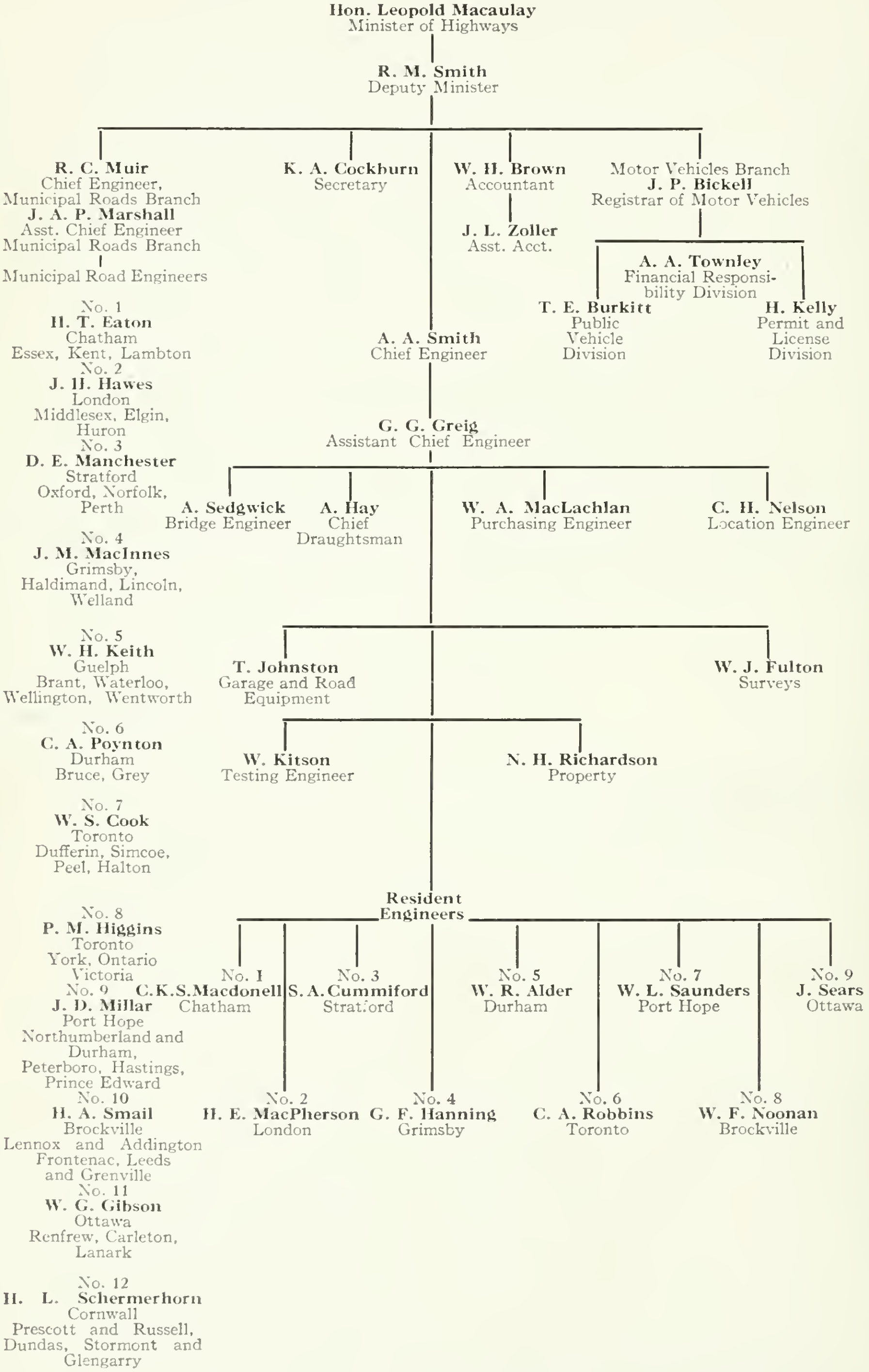
The report covers operations and the functions performed by the various departments, including King's Highways, Municipal Roads Branch, Accounting, Bridge Construction and the Motor Vehicles Branch.

I have the honour to be, Sir,

R. M. Smith,
Deputy Minister of Highways.

Parliament Buildings,
Toronto, March 18th, 1935.

1933
ORGANIZATION CHART
ONTARIO DEPARTMENT OF HIGHWAYS



Hon. Leopold Macaulay
Minister of Highways

R. M. Smith
Deputy Minister

R. C. Muir
Chief Engineer,
Municipal Roads Branch
J. A. P. Marshall
Asst. Chief Engineer
Municipal Roads Branch

Municipal Road Engineers

No. 1
H. T. Eaton
Chatham
Essex, Kent, Lambton
No. 2
J. H. Hawes
London
Middlesex, Elgin,
Huron
No. 3
D. E. Manchester
Stratford
Oxford, Norfolk,
Perth
No. 4
J. M. MacInnes
Grimsby,
Haldimand, Lincoln,
Welland

No. 5
W. H. Keith
Guelph
Brant, Waterloo,
Wellington, Wentworth

No. 6
C. A. Poynton
Durham
Bruce, Grey

No. 7
W. S. Cook
Toronto
Dufferin, Simcoe,
Peel, Halton

No. 8
P. M. Higgins
Toronto
York, Ontario
Victoria
No. 9
J. D. Millar
Port Hope
Northumberland and
Durham,
Peterboro, Hastings,
Prince Edward
No. 10
H. A. Smail
Brockville
Lennox and Addington
Frontenac, Leeds
and Grenville
No. 11
W. G. Gibson
Ottawa
Renfrew, Carleton,
Lanark

No. 12
H. L. Schermerhorn
Cornwall
Prescott and Russell,
Dundas, Stormont and
Glengarry

K. A. Cockburn
Secretary

W. H. Brown
Accountant

J. L. Zoller
Asst. Acct.

Motor Vehicles Branch
J. P. Bickell
Registrar of Motor Vehicles

A. A. Townley
Financial Responsibility Division

T. E. Burkitt
Public
Vehicle
Division

H. Kelly
Permit and
License
Division

A. A. Smith
Chief Engineer

G. G. Greig
Assistant Chief Engineer

A. Sedgwick
Bridge Engineer

A. Hay
Chief
Draughtsman

W. A. MacLachlan
Purchasing Engineer

C. H. Nelson
Location Engineer

T. Johnston
Garage and Road
Equipment

W. J. Fulton
Surveys

W. Kitson
Testing Engineer

N. H. Richardson
Property

Resident Engineers

No. 1
C.K.S.Macdonell
Chatham

No. 2
H. E. MacPherson
London

No. 3
S.A.Cummiford
Stratford

No. 4
G. F. Hanning
Grimsby

No. 5
W. R. Alder
Durham

No. 6
C. A. Robbins
Toronto

No. 7
W. L. Saunders
Port Hope

No. 8
W. F. Noonan
Brockville

No. 9
J. Sears
Ottawa

ONTARIO AND ITS HIGHWAYS

By R. M. Smith, Deputy Minister

It is my desire to submit herewith reports of the various branches of the Department of Highways covering their operation and activities during the calendar year 1933.

The report of the Chief Engineer dealing with The King's Highways indicates retraction, a curtailment of work and expenditure when compared with other years. This was mainly our natural reaction to the depressed financial condition of this Province in particular, and of the world in general. A fair amount of necessary and urgent projects were undertaken, as set forth in the report, but much of this work was done to relieve the unemployment situation. As in other years, several experiments were tried with a view to increasing the life of pavements, speeding construction, providing a better riding surface, or lowering construction and maintenance costs. While comparatively little new work was done, and only about eleven miles of road assumed, maintenance of The King's Highway system was given rather more than our ordinary careful attention.

The total expenditure during the fiscal year was $9,297,945.13 which, compared to the $10,578,586.12 spent in 1932 fiscal year, shows a decrease of $1,280,640.99. During 1933 our revenue amounted to $22,825,162.20. The above figures appear in Public Accounts for the fiscal year 1932-33.

The report of the Chief Engineer, Municipal Roads Branch, also shows a curtailment of road expenditures. While in the past, as stated, the Department by subsidies and other assistance has encouraged counties and townships to build more and better roads, a slowing down of the work recently became a necessity because the taxpayers, due to reduced commodity prices, were finding the burden too great. Comparing the two past years, we find the total approved expenditures on county and township roads to be $5,541,996.82 in 1933, and $7,351,655.29 in 1932. County and Township councils were urged to concentrate attention on the preservation of existing surfaces rather than on new construction and to see that the most economical use was made of the public funds. As on The King's Highways, by thorough planning and careful maintenance work, the county and township roads, under the jurisdiction of the Municipal Roads Branch, on the whole were in excellent condition at the end of the year. Three schedules, tabulating the assessments, levies for various purposes, and the outstanding debts of the municipalities, which are prepared annually by this Branch, are here printed for the first time. See pages 46 to 50, Appendices 10, 11 and 12.

The Motor Vehicles Branch report, while noting a decrease of approximately two per cent in total automobile registrations for 1933, shows an increase in revenue, which would indicate a better class of equipment on our roads, and greater activity on the part of licensed operators. An encouraging feature is the notable decline of accidents—the ratio records showing an improvement of 20 per cent. A study of these accident statistics prompts one to assume that the most competent driver is the one who uses his motor car extensively—the operator, in fact, who through experience has become an expert in this important modern field. It is also interesting to note that of accidents from all causes only one per cent can be attributed to the condition of the road surface.

The Motor Vehicles Branch, through its contacts with the motor vehicle administrators of nearby States of the Union and of adjoining Provinces, has done much to promote reciprocity in the use of licenses and permits, and thus made possible an easy flow of traffic across the borders. These conferences have also resulted in standard legislation of great value to the responsible motorist of both countries.

Tourist traffic naturally shows a decrease from the 1929 peak, but Ontario has at least maintained its position relative to the other Provinces. The Canada Year Book lists approximately 74 per cent of the total Dominion entries for Ontario.

While the Province, in a sense, has marked time this year, much work of a preparatory nature has been done and many necessary projects started. Capital expenditures were avoided wherever possible, or reduced, but the excellent condition of our roads at the end of 1933 is sufficient proof of the energy and resource which were expended upon them throughout the year.

REPORT OF HIGHWAYS ACCOUNTANT

By G. E. F. Smith

To R. M. Smith,
Deputy Minister of Highways:

During the fiscal year November, 1932, to October, 1933, this Branch was engaged in the following activities:

EXPENDITURE

	1932-33
King's Highways	$2,544,339 43
Grants to Counties	2,105,893 72
Grants to Townships	1,377,640 28
Grants to Indian Reserves	14,334 75
Payments on Connecting Links	14,443 28
Administration and Special Warrants	575,633 10
	$6,632,284 56

The Annual Statements were forwarded during January, 1934, to the respective Counties, showing their portion of cost on King's Highways. For summary see Appendix No. 2, also see Appendix No. 3 for summary of costs to Cities and Towns, *re* Suburban Areas expenditure.

As in past years, the Counties' expenditures were audited before payment of the grant, and Townships' expenditures were audited after grant was paid, any adjustment necessary, being made the following year. As a result of these audits, a saving to the Department of $69,048.75 was effected at a cost of $21,335.69, or considerably less than one-third.

The Relief Project, Highway No. 7, Actinolite to Perth, was completed with an expenditure during 1933 of $66,095.26, bringing total cost of this project at December, 1933, to $2,037,352.62. Of this amount, $1,000,000.00 was contributed from 1932 Relief Fund, leaving the Department cost at $1,037,352.62.

Crushing stone at Arnprior was also carried out as a Relief Measure, $3,796.86 being expended, of which $2,600.63 was contributed from Provincial and Federal Relief Funds.

In addition to the above, the Department expended $14,349.57 on the Belleville Bay Bridge, for which no assessment is made to City or County.

REVENUE

Gasoline Tax:

The net gasoline tax collected from 157 bonded vendors was $12,629,056.88 on a gallonage of 228,209,346 for the year 1933. During the year all vendors' books were audited at least twice, and in most cases three times. In all, 317 audits were made, resulting in extra revenue of $13,153.87.

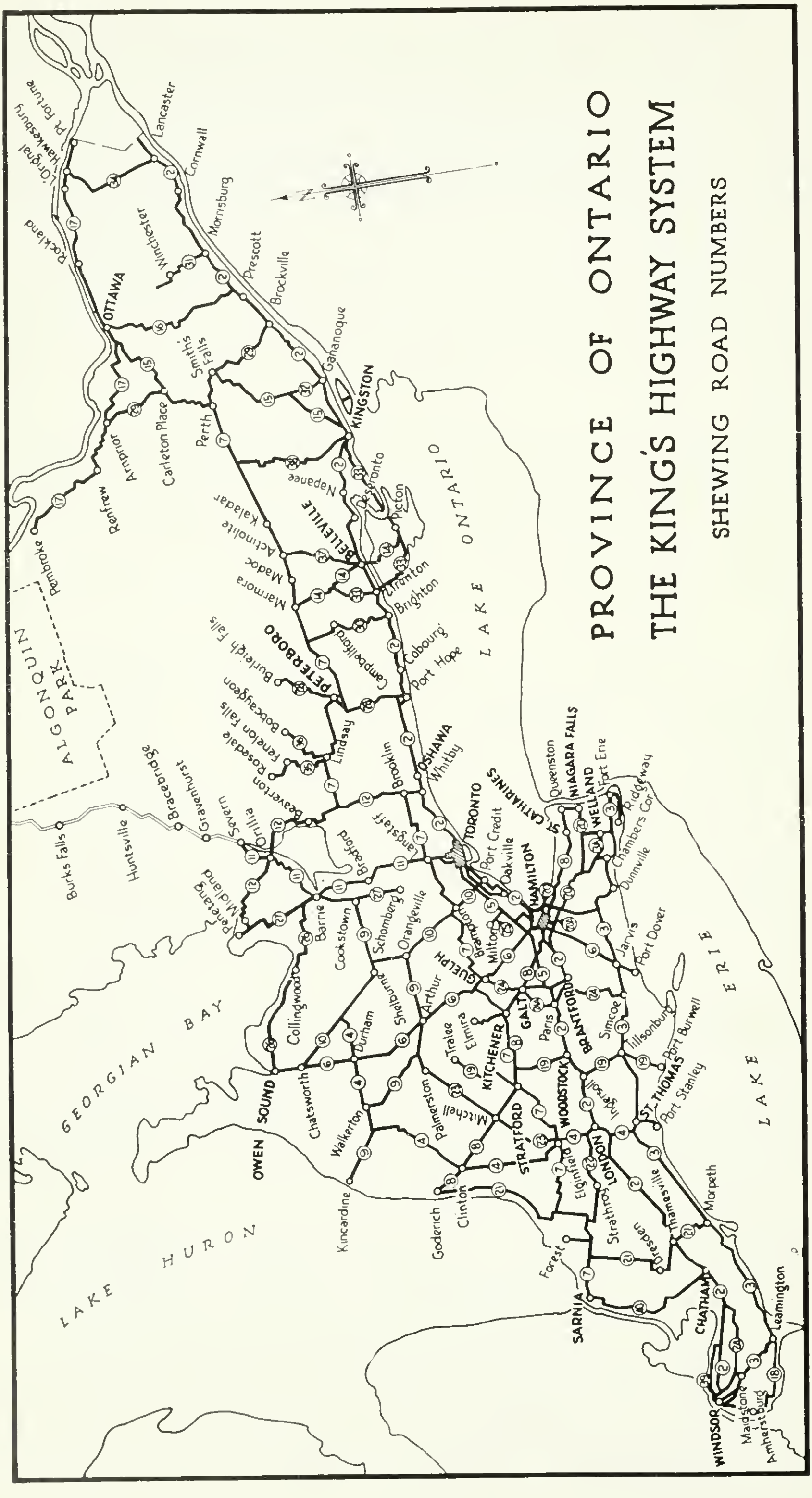
During the fiscal year ending October 31st, 1933, refunds of the Gasoline Tax were paid as follows:

	Claims	Amount
Municipal Trucks	220	$ 37,346 90
Government Departments	58	24,329 23
Cities, Towns and Municipalities	261	19,579 45
Aeroplanes	125	8,766 59
American	434	9,662 09
Railways	67	28,330 56
Lumbering	134	7,258 51
Cleaning	417	14,408 46
Stationary Engines	3,716	69,460 31
Contractors	488	44,711 48
Motor Boats	3,491	74,607 10
Manufacturing	1,098	77,573 58
Farming	32,001	413,014 53
	42,510	$829,048 79

In connection with refunds, our inspectors checked 1,702 claims, resulting in a saving to the Department of $4,496.32.

In March, 1933, the Department approved of deduction on the part of vendors for amounts paid by them in tax, and not collected. During the year such approvals amounted to $9,893.90. Of this amount the Department was successful in recovering $3,071.63 by invoicing direct the people who had failed to pay the vendor the amount of tax.

Miscellaneous Revenue	$ 54,425 26
Motor Vehicles	7,421,159 84
Gasoline Tax	12,629,056 88
Permits, Garages, Signs, Pumps, etc.	63,425 11
Sale of Property	1,434 54
Total	$20,169,501 63


PROVINCE OF ONTARIO
THE KING'S HIGHWAY SYSTEM
SHEWING ROAD NUMBERS
N
LAKE ONTARIO
LAKE ERIE
LAKE HURON
GEORGIAN BAY
ALGONQUIN PARK
L'Orignal
Hawkesbury
Pt. Fortune
Lancaster
Cornwall
Morrisburg
Winchester
Rockland
OTTAWA
Prescott
Brockville
Gananoque
Smiths Falls
KINGSTON
Carleton Place
Perth
Arnprior
Renfrew
Pembroke
Napanee
Deseronto
Picton
Kaladar
Actinolite
BELLEVILLE
Madoc
Trenton
Marmora
Brighton
Campbellford
Cobourg
Port Hope
PETERBORO
Burleigh Falls
Bobcaygeon
Fenelon Falls
Rosedale
Lindsay
OSHAWA
Whitby
Brooklin
Beaverton
Orillia
Severn
Gravenhurst
Bracebridge
Huntsville
Burks Falls
Midland
Penetang
Barrie
Bradford
Langstaff
TORONTO
Port Credit
Oakville
HAMILTON
ST. CATHARINES
Queenston
NIAGARA FALLS
WELLAND
Fort Erie
Ridgeway
Chambers Cor.
Dunnville
Jarvis
Port Dover
Cookstown
Schomberg
Orangeville
Brampton
Milton
GUELPH
Collingwood
Shelburne
Arthur
Elmira
Tralee
GALT
Paris
BRANTFORD
Simcoe
Tillsonburg
Port Burwell
KITCHENER
Durham
OWEN SOUND
Chatsworth
Walkerton
Palmerston
Mitchell
STRATFORD
WOODSTOCK
Ingersoll
ST. THOMAS
Port Stanley
Kincardine
Goderich
Clinton
Elginfield
LONDON
Strathroy
Thamesville
Morpeth
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ANNUAL REPORT, 1933

A. A. Smith, Chief Engineer

During the year 1933, the Department added 13.86 miles of road to The King's Highway system, and reverted 2.22 miles to various municipalities, thus making a total of 3,016 miles of road under the complete control of the Province.

The new roads assumed are as follows:

From Ryckman's Corners, south of Hamilton, to Highway No. 2, east of Alberton	6.86 miles
Lansdowne Avenue, south of Peterboro	1.25 miles

During the year the Department, while endeavouring to avoid unnecessary expenditure, found certain construction works to be an essential part of its service to the people of the Province. The list below tabulates the mileage of various types of surface laid to the end of 1933, and also the mileage laid during the year 1933.

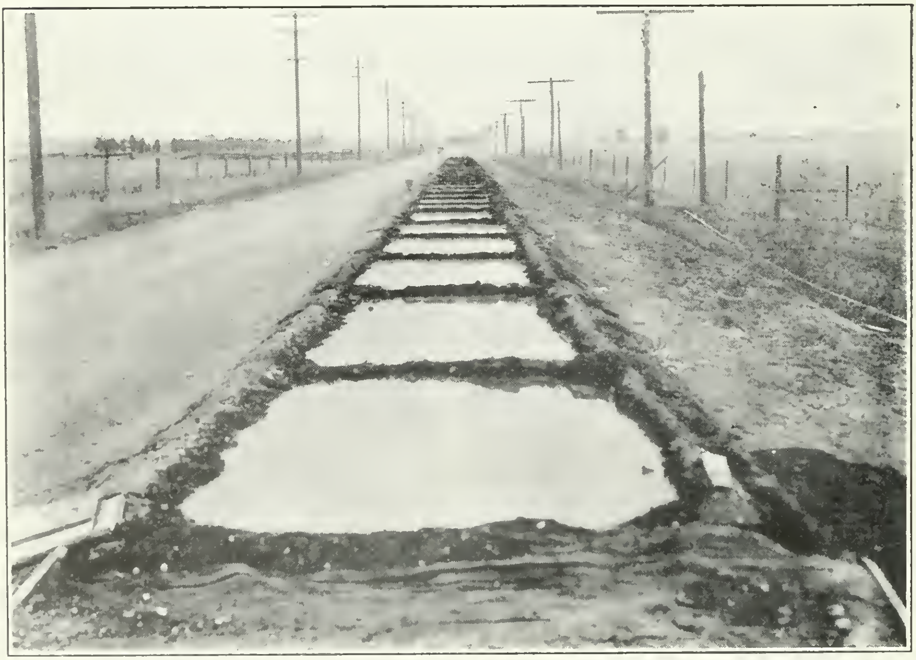
	Built in 1933	Total to date
Cement concrete pavement, 20 feet wide	47 miles	1,177 miles
Cement concrete pavement, 10 feet wide	31 "	31 "
Asphaltic concrete pavement	2 "	204 "
Mixed macadam pavement	40 "	520 "
Bituminous penetration pavement	11 "	225 "
Retread pavement	9 "	61 "
Waterbound macadam pavement	..	171 "
Grading	20 "	....
Gravel	..	627.39 "
Bridges and extensions	4 "	....
Structures under 20-foot span	48 "	....
Total		3,016.39 miles

Concrete Pavements

Our usual procedure of laying concrete slabs 20 feet wide, with a corrugated metal centre joint throughout, was changed in three contracts this year. Over a total length of 31 miles, a 10-foot concrete slab was laid on one side only of the centre line of road, and the edge adjoining the centre line was thickened to conform with the outside edge of a standard 20-foot pavement. By constructing only half the road, traffic is not greatly interfered with, and a permanent surface can be provided on the less heavily travelled roads at greatly reduced cost. Transverse joints were placed in all concrete pavements at 80-foot intervals.

The ponding method of curing concrete pavement was tried on several contracts, and gave excellent results. After the concrete is sufficiently set, the usual burlap or canvas covers are placed over the pavement and kept constantly moist for twenty-four hours. Afterwards, instead of covering the surface with dampened earth, the new pavement is banked around and flooded to a minimum depth of one-quarter of an inch with water. The surface is kept covered for eight days. This constitutes a good and somewhat faster method of curing than those previously used. It is particularly adaptable, of course,

10′ Concrete Pavement, Highway No. 26, East of Stayner.



10′ Concrete Pavement, Highway No. 27—Curing Pavement by Ponding.

to clay subgrades where water is plentiful and the road reasonably level. On page 14 will be found a photograph of a concrete pavement undergoing the ponding treatment.

The spraying of an asphalt emulsion in light quantities over a concrete pavement after the removal of the moistened covers was also given a trial during the year. This method of curing seals the moisture into the pavement and produces a dark surface when finished.

Bituminous Pavement

No changes were made in bituminous pavements, except that we endeavoured to produce a non-skid surface on this type by using a one-inch top course of finely graded asphaltic concrete, containing 55 per cent of ⅜ inch and ½ inch trap rock. This mixture also made the customary surface treatment unnecessary.

Asphalt Pavement, Highway No. 11, Showing Widened Pavement.

In an effort to eliminate accidents, the Department constructed a few miles of pavement to allow for three lane traffic, and for four lane traffic over crests of hills. On Yonge Street, north of Aurora to the Newmarket sideroad, is an example of this widening. See pages 15 – 16.

Retread Pavement

This type of construction which is ordinarily the application of bituminous aggregate on top of a worn-out pavement was extended during the year by first building a good stone or gravel base 6 inches in depth. This was consolidated and then given a primer coat of bitumen, before placing the retread material. It is expected that this type of construction will be useful on roads where traffic is light.

Relief Work

During this year every community in the Province, whether large or small, seemed to acquire a keen realization of its own acute unemployment situation. At all events, demands were made on the Department to employ local men wherever possible, and, to this end, contractors were required to take into a community only such key men as were necessary to the proper performance of the work in hand.

In the late Fall, the Department, both by contract and day labour, inaugurated a programme of relief work under agreement with the Federal Government, on which work the Department received 50 cents per man per day from the Federal Treasury. In the carrying out of this work the use of mechanical loading equipment, power graders or power drag lines was not permitted. The work, done by day labour, consisted of widening shoulders from 5 feet to 10 feet on roads in the vicinity of Hamilton and Toronto.

Asphalt Pavement, Highway No. 11, Showing Widened Pavement.

Special Grading

Grading operations were continued on the Middle Road from Hurontario Street westerly, and should be completed to Oakville in 1934.

On this road an effort is being made to obtain the easiest possible grades, and to eliminate all sharp curves. When completed, it will be possible to lay a four-lane traffic pavement, each 10 feet in width, with wide shoulders, the road allowance being not less than 86 feet.

Middle Road, Showing Sodded Bank, East of Credit Bridge.

Grading, Middle Road, East of Credit Bridge.

Three heavy grading contracts were let between Marmora and Madoc, on Highway No. 7, as relief work. This is a forced road cut through rugged territory, and the best location of the line created an interesting problem for the Department's engineers. Many big rock cuts were taken out, some of which are shown in the photographs. See pages 18 to 20. Steep grades and sharp curves were all eliminated, and provision was made for surfacing with finely crushed stone.

Rock Cut and Bridge, Highway No. 7, Marmora Looking East.

1933 Bridges

Londesboro	Black River
Skootamatta River	Tavistock Extension

A large bridge was commenced over the Credit River on the Middle Road, 841 feet long, 70 feet high, and having a pavement 40 feet in width from curb to curb, with two 6-foot sidewalks.

Railway Crossings

During the year three railway crossings, which were formerly protected by gates operated by watchmen, were equipped with bell and wig-wag signals, and the bell and wig-wag system was installed at six other crossings previously unprotected. An extra wig-wag signal was placed at one other crossing. The costs were generally borne jointly by the Railway Board, the Railway Company involved, and the Department.

A new subway in place of a narrow, low, and dangerous existing subway was commenced at Smithville under the T.H. & B. Railway on Highway No. 20. This subway should be completed early in 1934.

General Maintenance

The usual rigid maintenance was carried on as in past years, when every detail was given the closest attention.

Rock Cut, Highway No. 7, 5.3 Miles East of Marmora.

Gravel, Highway No. 7, 3.6 Miles East of Madoc.

Winter Maintenance

Snow-clearing operations covered practically the entire system of King's Highways. In addition, a small mileage of County Roads was opened when our equipment was available.

The sanding of highways as a safety measure was extended to the entire mileage of roads cleared for winter traffic. Sanding is the most important factor in winter maintenance, actually costing more than the snow removal. The Department feels that this service is much appreciated by the travelling public and well worth the expenditure.

Rock Cut, Highway No. 7, Eight Miles East of Marmora.

The practice of snow-clearing and sanding is, no doubt, increasing the general pavement maintenance costs, due to the fact that the frost has a better opportunity to penetrate the subgrade.

Scale Houses

A standard design for weigh-scale houses was adopted in 1933, so as to provide sufficient storage room for traffic officers' motor cycles, better heating arrangements, and a generally improved layout for handling this branch of the service.

Four additional scales were erected, one at each of the following points:

Lancaster
Bismark
Woodstock
Lansing

Traffic Census

During 1933, only one traffic census was taken. The count was made during the second week of February on three consecutive days at 84 points on 27 of The King's Highways. In comparing the traffic for 1933 with that of 1932, using the same locations each year, we find that the daily average was 76,057 in 1933, as compared with 99,905 in 1932, or a decrease of 24 per cent. The truck and horse-drawn traffic showed increases of 5 and 14 per cent respectively, but foreign cars and cars from other Provinces showed a decrease of 42 per cent, while the number of Ontario cars declined by 27 per cent.

The weather conditions accounted in some measure for this decrease. In 1932, the weather was fine and the roads were clear of snow, while in 1933 the weather was bitterly cold and the roads icy.

Property and Claims Branch

This Branch of the Department purchases land for widening and diverting of highways, gravel pits, quarries, and borrow pits; negotiates for the removal of buildings from newly acquired rights-of-way; arranges settlements for claims on account of lowering or raising the grade of a road, damage to crops by snow fences, and damages resulting from changing water courses.

When agreements have been executed for the purchasing of land, a search on the title is then made in the Registry Office and if there are any encumbrances, proper releases or discharges are secured.

Before registration of all plans, the agreements are checked with the plans to verify locations, areas, etc. Where it is found that the areas shown on the plan have not been covered by agreements, offers are immediately forwarded to the owner or owners for signatures. Where any disagreement arises between the Department and the vendor, the latter is advised to file his or her claim with the Ontario Municipal Board for a decision. Sometimes settlement is concluded without appealing to this authority. When the case is placed before the Board, however, this Branch prepares the necessary briefs and arranges for the defence at the hearing before the Board.

Surveys Branch

Highways Re-surveyed and Monumented

Part of Highway No. 17 through Township of Nepean—5 miles.

Highway No. 5 through the Townships of Brantford and Dumfries South—5 miles.

Highway No. 8 completing the Township of Saltfleet—2.5 miles.

Highways Recently Assumed Which Have Been Surveyed and Monumented

Middle Road through the Township of Toronto—2.5 miles.

Highway No. 20 through the Townships of Barton and Glanford—4 miles.

Highway No. 7 through the Townships of Bathurst and Elzevir—9.5 miles.

Highway No. 12 part of the Township of Tay—3 miles.

Highway No. 24 through the Township of Waterloo—2.5 miles.

In addition to these surveys, other surveys have been made and plans filed on many diversions and small parcels of land that had to be dealt with immediately. Some of these latter were expropriation surveys, for which complete detail plans had to be made to submit to the Ontario Railway and Municipal Board at the expropriation proceedings.

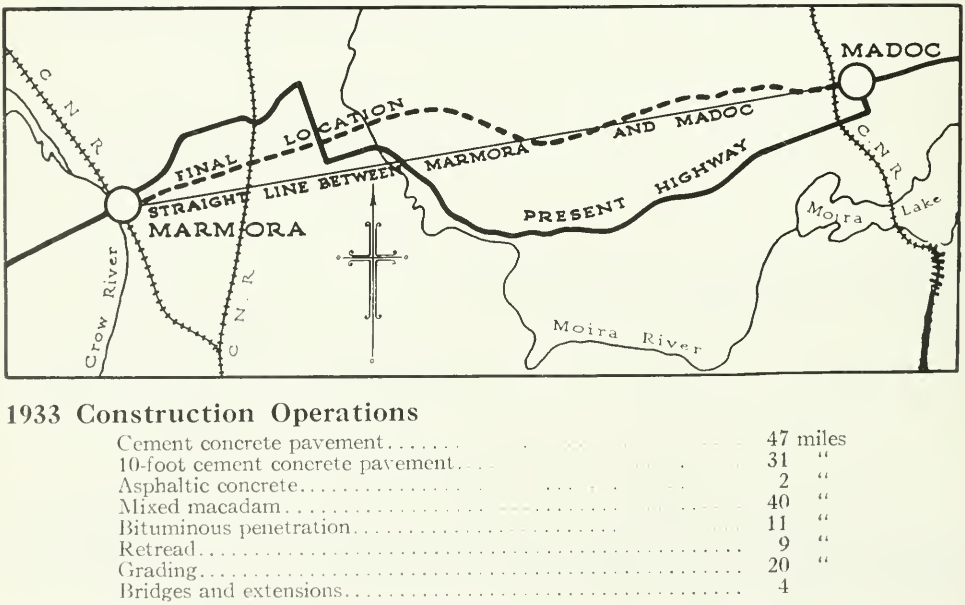
A number of preliminary traverse surveys through the townships recently assumed were also made.

The location of the line between Madoc and Marmora is an example of the location work carried out by the Surveys Branch. The Department of Highways operate only in the counties, and practically all The King's Highways are existing roads before their assumption by the Department. The major location problems are thus the straightening, widening and diverting of these roads to give better alignment, and the improvement of the grades to give increased visibility and a more uniform flow of traffic.

Between Madoc and Marmora, however, the old road was entirely abandoned and the location party was instructed to secure the nearest approximation to a straight line between these two points which was consistent with reasonable construction costs.

From existing maps the astronomic bearing of the straight line between Madoc and Marmora was computed, and this line run. A profile over it showed it to be impracticable because it was hitting the granite ridges at right angles. Using this line as a base, the country was walked over by the location party and more trial lines run to try to obtain suitable crossings of these ridges without appreciably lengthening the line or introducing excessive curvature. After more investigation of this nature, a satisfactory line was secured, which was staked, cross-sectioned and plotted. With the aid of this plan and cross sections, a study was made of this location by the Department heads, and suggested alternative lines run, and either adopted or discarded till the final line was approved. Final grades were then struck and estimates prepared. The line was then turned over to the Resident Engineer for construction.

A cut showing the new location and the old road is shown below, entitled, "Sketch showing re-location of highway between Madoc and Marmora".



1933 Construction Operations

Cement concrete pavement	47 miles
10-foot cement concrete pavement	31 “
Asphaltic concrete	2 “
Mixed macadam	40 “
Bituminous penetration	11 “
Retread	9 “
Grading	20 “
Bridges and extensions	4

The following works were carried out on the various Residencies during 1933:

Residency No. 1, Headquarters at Chatham.—Six and three-quarter miles of concrete pavement were laid on Tilbury Base Line Road, west of Tilbury, and two miles of concrete were laid north of Dresden on No. 21 Highway.

Residency No. 2, Headquarters at London.—Eight and one-half miles of mixed macadam were laid north of Hickson. This completed the pavement between Shakespeare and Woodstock.

Residency No. 3, Headquarters at Stratford.—The paving with concrete of five miles easterly from Paris completed the paving of the cut-off from Clappison's Corners to Paris, by-passing Hamilton and Brantford.

Five miles of concrete pavement north from Atwood completed the pavement between Mitchell and the Arthur-Kincardine Highway; also seven miles of concrete were laid east of Arthur on the Arthur-Orangeville section.

Six and one-half miles of mixed macadam were laid on the existing macadam south of Arthur.

A bridge at Tavistock was widened.

Residency No. 4, Headquarters at Grimsby.—Three miles of mixed macadam were laid west of Cayuga on No. 3 Highway. Mixed macadam was laid on No. 20 Highway to complete a gap east of Ryckman's Corners. The old concrete road into Hamilton was widened with mixed macadam.

Three and one-half miles of bituminous penetration were laid between Jarvis and Port Dover.

Residency No. 5, Headquarters at Durham.—Eight miles of mixed macadam were laid north of Durham on the section between Chatsworth and Durham, leaving only eight and one-half miles of unpaved road between Hamilton and Owen Sound.

Seven miles of retread were built on Thornbury-Meaford road.

A new bridge was constructed at Londesboro.

Grading operations were commenced easterly from Primrose Corners on the Cookstown Road.

Residency No. 6, Headquarters at Toronto.—Ten miles of 10-foot concrete pavement were laid south of Waverley on the Penetang-Barrie road, and twelve miles of 10-foot concrete easterly from Stayner on the Collingwood-Midhurst road. Five miles of concrete south from Beaverton made the concrete pavement continuous from Beaverton to Whitby.

Over two miles of asphaltic concrete were laid on Yonge Street on an eight-inch concrete base on the east side of the existing pavement.

Ten miles of grading were commenced on the Middle Road from Oakville easterly, and a large bridge over the Credit River was started.

Residency No. 7, Headquarters at Port Hope.—Late in the Fall, twenty-four miles of grading were awarded for winter relief work along No. 7 Highway, the greater part of this work being done in the following year.

Two bridges were built near Actinolite.

Residency No. 8, Headquarters at Brockville.—Seven miles of concrete were laid north from Morrisburg to Williamsburg, and six and one-half miles of mixed macadam north from Frankville, leaving only a gap of seven and one-half miles to complete the pavement between Brockville and Smith's Falls.

Seven and one-half miles of bituminous penetration, top course, were constructed at Elgin and Portland on the Smith's Falls-Kingston Highway.

South of Alexandria eight and one-half miles of grading were completed.

Residency No. 9, Headquarters at Ottawa.—Three miles of concrete pavement were laid on L'Orignal diversion, and just under four miles on diversions at Rockland and Wendover.

North and south of Cobden eleven miles of 10-foot concrete pavement were laid, leaving only six miles to complete the pavement from Renfrew to Pembroke.

One and one-quarter miles of mixed macadam were laid on Carling Avenue on the old macadam road.

BRIDGES COMPLETED ON THE KING'S HIGHWAYS

Arthur Sedgwick, Bridge Engineer

During the year 1933, four bridges were completed on The King's Highways. These included:

Londesboro Bridge.—This bridge is situated on Highway No. 4 about six miles north of Clinton. The bridge is of reinforced concrete throughout, with a total length of 150 feet made up by a main central arch of 100 feet clear span, with a flanking span of 20 feet at each end. The roadway is 30 feet wide, with a 5-foot sidewalk on one side. The new bridge replaces an old steel through truss on stone abutments, which were showing signs of failure. The cost of the new structure was $21,383.84.

Skootamatta River Bridge.—This bridge was built on the new No. 7 Highway at Actinolite. It consists of a 75-foot spandrel filled, reinforced concrete arch with 30-foot roadway and one 5-foot sidewalk. The bridge is on a solid rock foundation. The position of the crossing required a large amount of rock excavation to clear the river channel and level the foundations. The cost of the work amounted to $6,600.00.

Black River Bridge.—This bridge is also situated on Highway No. 7, about two and one-half miles west of Actinolite. It consists of two reinforced concrete girder spans of fifty feet each. The roadway is 30 feet wide with one 5-foot sidewalk. The bridge was built on rock, but considerable trouble was encountered reaching a proper foundation for the centre pier. The Highway follows an old, abandoned railway grade. Advantage was therefore taken of the existing old stone abutments built many years ago for the railway bridge. The total cost of the bridge was $6,750.00.

Tavistock Bridge Extension.—This is a steel bridge of 50-foot span, immediately south of Tavistock. This bridge occurs near what was a right-angle turn in the Highway. This corner was improved by putting in a curve, which necessitated the bridge being widened to fit the new alignment. The existing span was raised up and super-elevated, and an extension built. The cost amounted to $4,700.00.

Skootamata Bridge, Highway No. 7. Actinolite.

Black Creek Bridge, Highway No. 7, West of Actinolite.

In addition to the bridges actually built in 1933, the staff was occupied with plans for the large structures under consideration, including the new Credit River Bridge on the new Middle Road between Toronto and Hamilton.

The Department also examined and approved plans for 54 municipal structures.

BRIDGES COMPLETED ON THE KING'S HIGHWAYS DURING 1933

Name	Type	Span	Road No.	Township	County
Black River.........	Conc. Beam and Slab........	2 at 48′ 7″.......	7	Elzevir	Hastings
Londesborough.......	Conc. Arch Ribs and Conc. Beam & Slab.	1 at 100′ 0″, 2 at 20′ 6″.........	4	Hullett	Huron
Skootamatta.........	Conc. Barrel Arch........	75′ 0″...........	7	Elzevir	Hastings
Tavistock Exten......	Steel Plate Girder......	46′ 8″...........	19	E. Zorra	Oxford

REPORT ON MUNICIPAL ROADS

Report upon the Work of the Municipal Roads Branch for the Year 1933

For the purposes of the Municipal Roads Branch, Southern Ontario has been divided into twelve districts, each in charge of a district engineer with central headquarters in Toronto. Their work is to advise the county and township councils when called upon, and to see that the thirty-eight county and suburban engineers, the three hundred and thirty-eight township road superintendents and the thirteen Indian Reserve superintendents under their supervision do their work correctly, economically, and to the best interests of the community as a whole. Their work is, in fact, mainly educational, and is a direct continuation of the road campaign begun in this province around the end of the last century, and which was clarified and started on its present course by the passing of The Highway Improvement Act in 1901 and the appropriation at that time by the provincial government of $1,000,000 for county road construction. This provincial campaign for good roads met with considerable success, and when motor vehicle traffic began to create the present necessity for smooth, safe highways, the public was already aroused and knew, in a practical way, not only how to build good roads but how to carry the financial burden of them.

This enthusiastic crusade for the betterment of our roads is still proceeding, and the provincial government's main contact with the people of Southern Ontario on the educational side of this crusade is through the Municipal Roads Branch of the Department of Highways.

Policy of Limitation

At first, until the year 1930 in fact, this Branch expended considerable energy and resource in getting the county and township councils to appropriate more and more money for road and bridge work, and to build roads of such durability and design as to make provision not only for the present but for the immediate future as well. It became apparent, however, in 1932 that the world financial depression had seriously crippled the power of the people. The Minister of Highways, therefore, called a meeting of county road superintendents and other interested parties to urge upon them the absolute necessity of cutting their future estimates to the lowest figure compatible with safety and the protection of the communities' investments in their roads. For the first time the provincial government set a limit to the county and township expenditures which would be eligible for the government subsidy of 50% on county expenditures and 40% on township expenditures. In March, 1933, a letter was sent to each county and township clerk, setting forth the considered opinion of the Department and urging the county and township councils to relieve, as much as possible, the tax-payers' burden by cutting the year's road programme to the minimum.

Due in a great measure to this changed attitude of the Department, the comparatively low expenditures on county and township roads made in 1932 were cut by two and a half million dollars for 1933. The actual 1933 figures were as follows:—

	Approved Expenditure	Government Grant
County Roads	$3,058,622 91	$1,529,228 37
Township Roads	2,483,669 91	988,342 09
County and Twp. Road Totals, 1933	$5,541,996 82	$2,517,570 46
County and Twp. Road Totals, 1932	7,351,655 29	3,421 482 73

Low-Cost Pavements

The engineers of the Department and of the county and township organizations were keenly alive to the danger of this drastic reduction in expenditure, not only to the existing pavements but to the travelling public, through neglect of necessary repairs to roads and bridges. A splendid effort was made by all concerned to safeguard our highways from dangerous deterioration by apportioning the monies allowed for maintenance with the utmost skill.

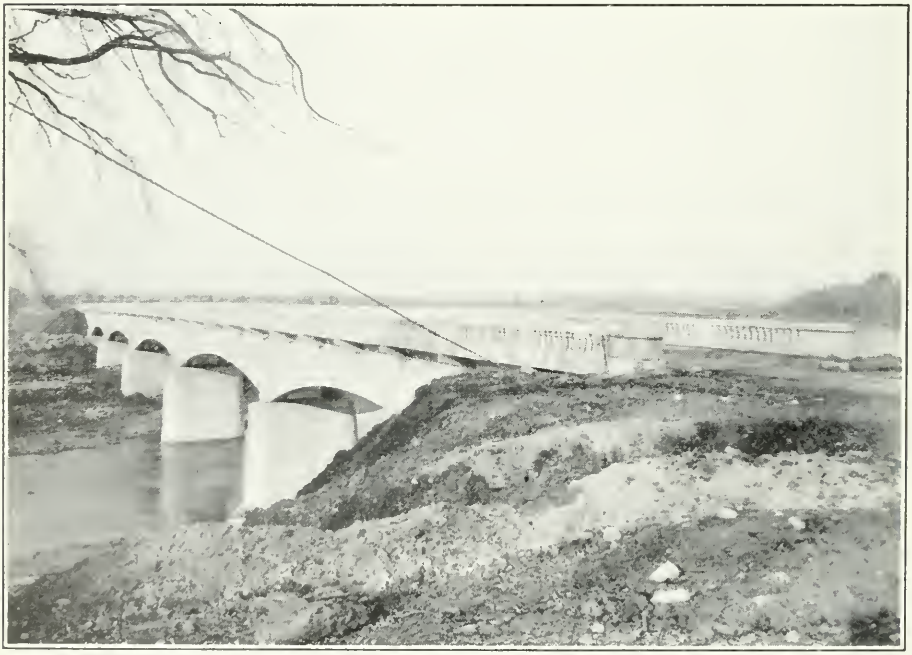
A certain amount of road and bridge construction could not, of course, be avoided, and here again the engineers cast around for new methods of construction which would suit the community's depleted pocket-book. A number of county engineers were invited by the Department to prepare statements of their personal experiences with, and their opinions of, low-cost road construction of various types. The response was so generous and of such interest that the resultant brochures were carefully condensed and multigraphed by the Department and bound into a pamphlet entitled "Bituminous Low-Cost Surfacing." This pamphlet was distributed to all county and other engineers interested in the subject.

County Roads

Among the appendices following will be found, page 41, Appendix 7, the customary "Statement of Work and Expenditure on County Roads," which also gives, by counties, a summary of work done. A distribution of the monies spent on county road maintenance in 1933 will be found on page 42, Appendix 8. Only about 19 miles of permanent pavements were laid by the county organizations during the year, and 19 bridges were built.

Notable among the latter was the Cockshutt Bridge, constructed for the Brantford Suburban Roads Commission, on the Cockshutt Road over the Grand River at a cost of approximately $120,000. The first bridge at the present site was erected in 1856 for the Brantford-Oakland Toll Road Company

The Cockshutt Bridge, January 21, 1933.



View of the New Cockshutt Bridge, Showing Rip Rap on the Approach.

at a cost of $6.50 per lineal foot for two river spans 126 feet long. This wooden structure was replaced in 1901 by a bridge of seven steel spans with a total floor length of 523 feet, width of roadway 15 feet, 7 inches. See photograph, page 28.

Modern motor traffic and the unstable soils in this vicinity rendered a new structure imperative, and in December, 1932, the new Cockshutt Bridge was commenced near the site of the old structure and, in spite of many difficulties, completed within a year. This new concrete bridge is of a beam and cantilever type unique in this country, is in 5 spans, with a total length of 620 feet, and has a 20-foot road width, as well as sidewalks for pedestrian traffic. See photograph, page 28.

The City of Brantford and the County of Brant are to be congratulated on a handsome structure swiftly and economically constructed.

Township Roads

On page 44, Appendix 9, is the "Summary of Expenditure on Township Roads." The most notable work on township roads during the year was the construction in the Township of Grantham, Lincoln County, of 5 miles of cement-concrete pavement, 18 feet wide. This road, however, was built by the Dominion Government in lieu of the construction of a bridge over the New Welland Ship Canal, this Branch being solely concerned with drawing up the specifications and supervising the work of construction. Following is a summary of the 1933 township road works:

Gravel and stone roads built	211.5	miles
Surface-treated macadam	4.5	"
Brick-block	0.5	"
Cement-concrete	5.0	"
Bridges built	39	
Concrete slab culverts	35	
Pipe and tile culverts	1,188	

County-Suburban Roads

Legislation was commenced under the now obsolete Ontario Highways Act in 1915 to allow cities to contribute toward the cost of adjacent county roads and thereby assure themselves of adequate roadways in their immediate vicinity. The resultant equal distribution of the cost of constructing and maintaining these suburban roads as between the county organization (which does the actual work) and the city has progressed during all these years with comparative smoothness and to the satisfaction of all concerned parties.

Twenty-two cities and two separated towns (Smith's Falls and Walkerville) were co-operating with the counties under this scheme in 1933. A total of $636,540.22 was expended and subsidized at 50% by the government. Only half of the total spent was for construction, due to the prevailing desire to postpone expensive works until a more favourable time. Twelve and a half miles of gravel and stone roads were built, however, and 6.4 miles of permanent pavements laid down.

Indian Reserves

For the year 1933 Alnwick Indian Reserve in Northumberland County was brought under the provisions of Section 46, Subsection (2) of The Highway Improvement Act, thus making a total of 13 Reserves so operating. Under this section, $24,560.04 was spent during the year on which the government subsidy was $11,396.66. On county road connecting links in Indian Reserves (Sec. 34 of the Act) $6,947.68 was spent, on which the government subsidy was $3,473.83.

Annual Conference

For the nineteenth consecutive year the Conference for County and Township Road Superintendents and Engineers was held under the auspices of the Municipal Roads Branch of the Department at Foresters' Hall on February 20th and 21st. In spite of the efforts being made to cut expenditures, the county and township councils sent about 200 superintendents to this gathering and the customary atmosphere of energy and enthusiasm for the cause of better roads was in no sense lessened.

For the fifth consecutive year the district conference was held in Chatham at the beginning of February, and another district conference was held in London for the sixth consecutive year on March 14th and 15th. These smaller gatherings are a valuable supplement to the large one, in that problems of a character indigenous to the locality may be thoroughly examined by the people most concerned, and talked over in a more intimate and neighborly fashion than the Toronto Conference allows. The Chatham Conference was attended by the county and township men from Kent and Essex, and the London Conference covered the Middlesex, Elgin and Lambton Counties' area. The friendly exchange of experiences made possible by these smaller gatherings of road men are believed by this Branch to be of great practical benefit to those participating.

New Features

Mortgaging the resources of our descendants for large construction works has been seen during the past few years in an increasingly unfavourable light. This Department, while urging the municipalities to provide good permanent roads for both local and foreign traffic, has kept watch on the ability of the taxpayer to meet the necessary cost and in the past many desirable projects for improvement have had to be abandoned because the Department could not give approval to the heavy financing involved. On page 46, Appendix 10, of this report we publish, as a matter of interest at this time, a summary of "Outstanding Debt" for road purposes in the various counties as at the end of 1933.

Other new features of the report of the Municipal Roads Branch for this year will be found on pages 48 and 50, namely: "Summary of 1933 County Levies," Appendix 11, and "Summary of County and Township Levies, 1933," Appendix 12. This Branch has for some years paid special attention to the amounts raised by the counties and townships for road purposes. The totals for the various classes of roads have been obtained and also the amounts raised by the municipalities for other purposes, from the most reliable sources available, so that the road levies may be compared with the levies for education, administration of justice, charity, etc. The gathering and digestion of the data which is here summarized has entailed considerable thought and energy, and is made possible through the kindly co-operation of the municipal clerks and treasurers of the province. The Department desires to thank these officials for the help they have given us in this and many other matters.

APPENDICES

Nos. 1 to 12

APPENDIX

DETAILS OF CONSTRUCTION—

County	Bit.: Mixed Method	Culverts and Exten. Built	Bridges	Miles of Grading and Shoulders	Miles of Gravelling
Brant					
Bruce		1			26.2
Carleton	1.25	1 and 1 Pipe			
Dufferin					8.7
Dundas, Stormont and Glengarry		23 and 1 Pipe, 5 Exten.		8.1	11.6
Durham and Northumberland					
Elgin					13.0
Essex					5.3
Frontenac		4 Pipe		0.5	27.5
Grey	13.1	5 Exten., 6 Pipe		0.7	50.5
Haldimand	3.12				
Halton					
Hastings		5 Exten., 28 C.I.P.	2	6.33	6.33
Huron			1	1.1	25.
Kent		2 and 5 Exten.			
Lambton					2.2
Lanark					19.3
Leeds and Grenville	6.5	5 Exten., 4 Pipe		0.2	28.7
Lennox and Addington					
Lincoln	0.37				
Middlesex					
Norfolk	2.8	1			2.8
Ontario					
Oxford	5.2	7	1		5.2
Peel					3.5
Perth	3.0	6 and 6 Exten.	1		3.0
Peterborough					
Prince Edward					
Renfrew		4 Exten.		0.2	
Russell and Prescott		3 Exten., 1 Pipe			
Simcoe				3.08	33.85
Victoria		2 Exten., 6 C.I.P.	1	3.86	3.86
Waterloo					
Welland					
Wellington	6.5	1 and 18 Exten.			
Wentworth	4.73	6 and 4 Exten., 4 C.P., 8 C.I.P.		2.09	
York			1 Ftgs. only	5.4	1.5

No. 1

KING'S HIGHWAYS, 1933

Miles of Traffic Bound Macadam	Miles of Bitum. Penetration	Miles of Asphalt Concrete	Miles of Concrete Pavement	Lin. Ft. of Guard Rail	Lin. Ft. of Storm Sewers and Tiling	Miles of Surface Treatment	Miles of Gravel Road Maint.	Miles of New Fence Erected
....	....	....	4.78	....	1,403	1.	11.88	1.3
....	....	....	....	1,004	800	....	26.2	0.4
....	....	....	....	2,112	....	3.13	....	0.25
....	....	....	....	915	240	....	14.2	2.1
....	....	....	6.4	4,000	4,200	10.	4.5	1.6
....	....	....	....	....	....	....	19.26	....
....	....	....	....	500	30,264	....	13.	0.031
....	....	....	0.5	....	....	3.75	25.47	0.131
....	....	....	....	500	....	70.08	27.58	2.
8.4	....	....	....	414	....	....	50.5	4.2
....	1.78	....	....	5,280	1,067	2.83	....	1.5
....	....	....	....	....	....	2.5	....	....
....	....	....	....	22,280	....	....	28.82	12.23
....	....	....	....	2,400	1,400	....	25.	0.8
....	....	0.2	9.3	1,840	864	13.5	12.49	7.15
....	....	....	....	....	....	....	21.26	0.045
....	2 retread	....	....	....	....	23.5	19.3	....
....	7.6	....	....	1,900	2,000	53.6	50.4	1.5
....	....	....	....	....	....	0.53	11.25	....
....	....	....	....	7,920	528	10.26	....	3.
....	....	....	....	....	....	....	25.64	....
....	1.74	....	....	90	....	2.	....	....
....	....	....	5.1	....	....	....	27.5	0.5
....	....	....	....	....	....	1.	....	....
....	....	....	....	1,492	....	5.	3.5	....
....	....	....	5.1	....	5,000	10.5	5.1	0.3
....	....	....	....	....	....	....	31.91	....
....	....	....	....	....	....	....	....	....
....	....	....	11.3	....	....	7.2	47.55	....
....	....	....	6.95	2,112	....	33.48	6.25	1.7
....	....	3.28	21.5	640	....	....	79.2	2.6
....	....	....	....	....	....	....	21.5	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	2.39	....	....
....	....	....	6.9	719	59,000	6.5	6.9	6.7
....	....	....	....	....	....	5.15	....	2.5
....	....	5.5	1.58	528	1,214	....	1.5	....

APPENDIX No. 2

EXPENDITURE ON THE KING'S HIGHWAYS, 1933

	Construction	Maintenance	Total Expenditure	Cost to Province	Cost to County	Cost to Connecting Links and Commissions	Cost to Cities (Sub. Area)
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	137,114 32	11,619 51	148,733 83	118,179 48	29,746 76		807 59
Bruce	4,255 13	10,774 09	15,029 22	12,023 37	3,005 85		
Carleton	29,704 69	24,289 55	53,994 24	48,296 71	3,770 67		1,926 86
Dufferin	18,386 03	11,240 68	29,626 71	23,701 36	5,925 35		
Dundas, Stormont and Glengarry	223,355 61	30,387 97	253,743 58	202,994 87	50,748 71		
Durham and Northumberland	6,296 14	24,887 25	31,183 39	24,946 71	6,236 68		
Elgin	9,444 61	11,791 83	21,236 44	16,226 70	4,247 29		762 45
Essex	48,058 32	29,576 67	77,634 99	61,199 44	15,526 99		908 56
Frontenac	44,189 86	26,649 96	70,839 82	60,278 41	9,087 45		1,473 96
Grey	188,710 62	32,244 35	220,954 97	176,883 78	44,190 99		*Cr. 119 80*
Haldimand	105,352 09	7,456 34	112,808 43	90,246 74	22,561 69		
Halton	6,371 71	14,047 09	20,418 80	16,256 21	4,031 20	131 39	
Hastings	141,334 44	40,257 38	181,591 82	148,860 76	32,559 03		172 03
Huron	36,616 88	15,677 51	52,294 39	41,835 51	10,458 88		
Kent	251,859 94	30,334 98	282,194 92	223,380 70	56,438 99		2,375 23
Lambton	4,791 60	15,029 74	19,821 34	15,730 12	3,964 27		126 95
Lanark	44,643 21	15,940 17	60,583 38	49,866 47	10,716 91		
Leeds and Grenville	202,249 50	54,568 38	256,817 88	205,454 30	51,363 58		
Lennox and Addington	39,194 51	6,271 16	45,465 67	43,941 49	1,524 18		
Lincoln	46,412 98	18,466 99	64,879 97	51,188 12	12,976 00		715 85
Middlesex	31,932 15	32,436 79	64,368 94	44,541 49	12,873 79		6,953 66
Norfolk	6,152 31	8,237 06	14,389 37	11,511 50	2,877 87		
Ontario	112,880 30	25,260 97	138,141 27	110,513 02	27,628 25		
Oxford	145,450 79	6,792 68	152,243 47	120,886 52	30,448 69		908 26
Peel	32,419 75	21,356 67	53,776 42	43,015 55	10,732 94	27 93	
Perth	163,457 44	19,562 88	183,020 32	145,967 77	36,604 07		448 48
Peterborough	43,986 01	25,639 88	69,625 89	54,434 15	13,925 18		1,266 56
Prince Edward	299 74	2,443 02	2,742 76	2,194 21	548 55		
Renfrew	121,914 44	26,144 70	148,059 14	146,964 47	1,094 67		
Russell and Prescott	16,939 14	44,375 84	209,314 98	207,779 61	1,535 37		
Simcoe	323,750 02	36,124 37	359,874 39	287,899 52	71,974 87		
Victoria	39,628 91	11,468 37	51,097 28	40,877 83	10,219 45		

Waterloo	*Cr.* 2,974 09	10,991 35	8,017 26	7,251 24	1,603 45		*Cr.* 837 43
Welland	25,242 82	14,446 48	39,689 30	30,773 42	7,937 86		978 02
Wellington	275,399 07	15,756 51	291,155 58	231,329 92	58,231 11		1,594 55
Wentworth	164,943 92	20,506 00	185,449 92	129,789 54	37,035 17	137 03	18,488 18
York	200,017 88	22,972 54	222,990 42	130,741 48	44,550 27	85 08	47,613 59
	3,437,782 79	776,027 71	4,213,810 50	3,377,962 49	748,903 03	381 43	86,563 55
Burlington Beach		1,028 88	1,028 88	823 10		205 78	
Indian Reserve (Hastings County)	9 91	385 43	395 34	316 27		79 07	
Total	3,437,792 70	777,442 02	4,215,234 72	3,379,101 86	748,903 03	666 28	86,563 55

APPENDIX No. 3

EXPENDITURE ON PROVINCIAL SUBURBAN AREAS, 1933

City	Construction	Maintenance	Total	Part paid by City
	$ c.	$ c.	$ c.	$ c.
Belleville	109 65	750 51	860 16	172 03
Brantford	136 74	3,901 24	4,037 98	807 59
Chatham	10,187 43	1,688 73	11,876 16	2,375 23
Galt	17 17	1,291 49	1,308 66	261 73
Guelph	5,008 71	2,964 03	7,972 74	1,594 55
Hamilton	78,244 86	14,196 05	92,440 91	18,488 18
Kingston	1,411 56	5,958 24	7,369 80	1,473 96
Kitchener	*Cr. 8,325 83*	2,830 03	*Cr. 5,495 80*	*Cr. 1,099 16*
London	28,934 78	5,833 53	34,768 31	6,953 66
Niagara Falls	630 79	2,094 27	2,725 06	545 01
Ottawa	1,028 55	8,605 76	9,634 31	1,926 86
Owen Sound	*Cr. 2,122 74*	1,523 76	*Cr. 598 98*	*Cr. 119 80*
Peterborough	46 25	6,286 53	6,332 78	1,266 56
Sarnia	21 87	612 89	634 76	126 95
St. Catharines	969 62	2,609 67	3,579 29	715 85
St. Thomas	741 80	3,070 45	3,812 25	762 45
Stratford	110 21	2,132 18	2,242 39	448 48
Toronto	201,663 15	36,404 82	238,067 97	47,613 59
Welland	1,001 21	1,163 87	2,165 08	433 01
Windsor	843 36	3,699 43	4,542 79	908 56
Woodstock	3,161 86	1,379 46	4,541 32	908 26
	323,821 00	108,996 94	432,817 94	86,563 55

EXPENDITURE ON KING'S HIGHWAY CONNECTING LINKS, 1933

Town	Construction	Maintenance	Total	Proportion paid by Town
	$ c.	$ c.	$ c.	$ c.
Port Credit	....	111 72	111 72	27 93
Long Branch	....	137 86	137 86	34 46
Oakville	....	77 52	77 52	38 76
Mimico	....	54 71	54 71	27 36
New Toronto	....	46 51	46 51	23 26
Burlington	2 00	183 26	185 26	92 63
Dundas	5 00	269 06	274 06	137 03
	7 00	880 64	887 64	381 43

APPENDIX No. 4

SCHEDULE OF ASSUMPTIONS AND REVERSIONS OF SECTIONS OF THE KING'S HIGHWAY SYSTEM FOR THE YEAR 1933

During the year the system was extended by assuming 13.86 miles, less 2.22 miles reverted, making a total assumed of 3,016.39 miles. A list of the roads added to the system, together with mileage and date of designation, also list of roads and mileage reverted from the system, is as follows:

The King's Highways Assumed in 1933

County	Date of Designation	Municipality	Mileage	Total Mileage
Elgin	5th July, 1933	Port Burwell Village	0.56	
	5th July, 1933	Vienna Village	1.12	1.68
Huron	27th September, 1933	Wingham Town	0.21	0.21
Kent	21st October, 1933	Thamesville Village	0.53	0.53
Peterborough	29th November, 1933	Monaghan N. Township.	1.98	
	29th November, 1933	Peterborough City	0.52	2.50
Wentworth	6th September, 1933	Ancaster Township	5.00	
	6th September, 1933	Barton Township	3.94	8.94
				13.86

Reversions from January 1st, 1933, to December 31st, 1933

County	Municipality	Year	Mileage	Total Mileage
Brant	Dumfries S. Township	1933	0.28	0.28
Carleton	N. Gower Township	1933	0.06	0.06
Hastings	Thurlow Township	1933	0.35	
	Thurlow Township	1933	0.63	0.98
Oxford	Salford Village	1933	0.40	0.40
Wentworth	Beverly Township	1933	0.50	0.50
				2.22

APPENDIX No. 5

GROWTH OF COUNTY ROAD EXPENDITURES AND PROVINCIAL GRANTS

Year work was done	No. of Counties	Expenditure	Government Grant
1903	4	$ 166,149 06	$ 55,383 02
1904	7	291,085 42	97,028 48
1905	7	179,593 62	59,864 53
1906	10	247,102 37	82,367 45
1907	14	383,518 86	127,839 62
1908	15	429,393 57	143,131 16
1909	16	440,374 08	146,791 36
1910	17	553,312 61	184,437 54
1911	19	712,072 52	237,357 50
1912	20	898,631 18	299,543 69
1913	20	847,684 15	282,561 35
1914	20	785,521 93	261,840 61
1915	20	811,540 05	270,513 34
1916	23	955,447 19	327,663 76
1917	32	1,388,341 87	483,621 32
1918	36	2,226,899 70	815,440 01
1919	37	5,714,937 19	2,623,719 24
1920	37	7,956,863 72	3,626,418 08
1921	37	11,078,288 39	5,119,882 26
1922	37	9,162,491 79	4,258,339 83
1923	37	7,403,509 96	3,418,523 07
1924	37	6,861,451 62	3,214,321 50
1925	37	6,608,431 04	3,222,678 10
1926	37	5,838,445 12	2,913,660 96
1927	37	7,424,464 85	3,706,719 88
1928	..	8,784,420 42	4,360,222 86
1929	..	9,212,758 04	4,591,110 16
1930	..	8,929,424 27	4,463,527 11
1931	..	7,265,350 65	3,625,860 66
1932	..	4,214,410 70	2,106,457 18
1933	..	3,058,622 91	1,529,228 37
Totals to date	..	$120,830,538 85	$56,656,054 00

APPENDIX No. 6

COUNTY ROAD MILEAGE AND EXPENDITURE

From Inception of County Road Systems up to December 31st, 1933, Provincial Subsidies on 1933 Expenditure being Paid in 1934

County	Year of Establishment of System	Road Mileages			Total Approved Expenditure to end of 1933	Total Government Grant
		County Roads	County Suburban Roads	Total		
Brant	1917	70.9	21.5	92.4	$2,249,448 79	$1,116,490 26
Bruce	1917	305.8	....	305.8	2,873,679 98	1,426,819 26
Carleton	1909	155.9	102.3	258.2	6,427,564 67	3,006,704 64
Dufferin	1918	138.0	....	138.0	1,275,710 48	601,188 36
Elgin	1917	226.1	9.5	235.6	2,296,282 59	1,072,426 93
Essex	1916	213.7	47.5	261.2	5,867,548 44	2,878,162 49
Frontenac	1906	118.2	38.5	156.7	1,420,733 59	644,357 79
Grey	1918	178.5	43.5	222.0	3,123,333 04	1,538,789 67
Haldimand	1911	160.0	....	160.0	2,320,422 59	1,058,870 89
Halton	1907	124.2	....	124.2	2,107,581 09	957,845 15
Hastings	1904	304.0	....	304.0	3,194,982 93	1,470,350 90
Huron	1917	374.1	....	374.1	2,511,280 03	1,192,374 77
Kent	1917	256.5	12.8	269.3	4,082,202 79	2,037,433 15
Lambton	1918	271.8	14.2	286.0	2,477,711 73	1,189,858 27
Lanark	1903	237.5	7.5	245.0	2,646,520 11	1,245,346 31
Leeds and Grenville	1910	267.6	5.0	272.6	3,495,416 51	1,601,000 92
Lennox and Addington	1906	158.5	....	158.5	2,551,949 08	1,230,650 24
Lincoln	1904	123.8	12.3	136.1	3,913,417 89	1,693,522 10
Middlesex	1906	369.3	28.0	397.3	3,954,758 25	1,793,068 95
Norfolk	1917	210.3	....	210.3	2,845,719 96	1,337,186 79
Northumberland and Durham	1918	241.4	....	241.4	3,015,369 29	1,479,398 93
Ontario	1918	183.6	13.5	197.1	1,737,273 39	835,002 66
Oxford	1904-07	191.2	3.9	195.1	2,722,760 46	1,188,681 95
Peel	1906	141.1	....	141.1	2,425,287 21	1,074,525 70
Perth	1907	153.0	9.3	162.3	1,582,419 53	706,249 88
Peterborough	1919	109.6	32.3	141.9	939,068 52	444,893 89
Prescott and Russell	1917	191.2	....	191.2	4,128,583 08	1,836,845 47
Prince Edward	1907	140.0	....	140.0	1,905,644 16	863,844 27
Renfrew	1918	219.1	....	219.1	3,057,984 62	1,485,196 43
Simcoe	1903	261.4	....	261.4	3,778,412 56	1,734,161 63
Stormont, Dundas and Glengarry	1917	317.1	....	317.1	5,109,537 11	2,481,246 44
Victoria	1917	133.7	....	133.7	2,337,180 83	1,157,604 67
Waterloo	1908	147.4	13.7	161.1	3,297,155 15	1,601,978 69
Welland	1912	113.7	17.0	130.7	4,559,623 59	2,100,460 02
Wellington	1903	297.9	12.5	310.4	3,415,059 89	1,580,930 62
Wentworth	1902	88.0	56.5	144.5	3,778,471 46	1,704,599 89
York	1911	41.3	256.7	298.0	11,404,443 46	5,287,985 02
Totals	....	7,235.4	758.0	7,993.4	$120,830,538 85	$56,656,054 00

APPENDIX

SUMMARY

Statement of Work and

Name of County	Work Done						
	Miles Graded	Miles Stoned	Miles Gravelled	Tile Drain Rods	Bridges	Pipe and Tile Culverts	Other Culverts
Brant	1.50		1.50	224	1		
Bruce & Progress Paym't	4.25		4.25	121		42	
Carleton	9.90		8.40	124		24	4
Dufferin	0.30		0.30	16	2		
Elgin				55		2	1
Essex							
Frontenac		2.00				7	
Grey	3.40		7.85	151		22	1
Haldimand					3		
Halton							
Hastings & Progress Payment	3.20	1.00				19	
Huron	0.75		0.50		1		
Kent	18.20	Concrete 10.20	11.00	109	1	20	
Lambton	4.00		4.54		4	2	1
Lanark							
Leeds and Grenville	5.17	2.50 Asp. Con. 1.67	2.25	2		17	4
Lennox and Addington							
Lincoln	0.78	Concrete 0.78				31	
Middlesex				675		4	1
Norfolk	1.50		1.50			1	
Northumberland and Durham	4.00		18.25		1	30	
Ontario	5.22	Concrete 2.62	3.20	21		67	
Oxford				80	1	3	
Peel					1	12	1
Perth	3.00		3.00	91		12	1
Peterborough						7	
Prescott and Russell							
Prince Edward							
Renfrew							
Simcoe	3.45		3.95		1	11	
Stormont, Dundas and Glengarry		2.00					
Victoria						12	
Waterloo	1.65	1.80		71	1	110	
Welland	0.43	0.43			1	7	
Wellington					1	28	
Wentworth				30		8	2
York	3.29	Bit. Mac. 2.61 Asp. Con. 0.68		95		34	
Totals	73.99	28.29*	70.49	1,865	19	532	16

*Includes:

Water-bound Macadam	9.73	miles.
Bituminous Macadam	2.61	"
Asphaltic Concrete	2.35	"
Cement Concrete	13.60	"

No. 7

1933

Expenditure on County Roads

Approved Expenditure									
Roads and Culverts	Bridges	Machinery and Repairs	Urban Improvement	Purchase of Gravel Pits	Superintendence	Total Construction	Maintenance	Total Approved Expenditure	Subsidy 50%
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
11,485 96	118,136 59	9,913 88	1,981 70	....	4,509 11	146,027 24	26,883 89	172,911 13	86,455 57
20,223 52	....	12,497 31	3,141 80	....	3,816 55	39,679 18	58,456 82	98,136 00	49,068 00
38,130 23	8,499 22	2,589 28	....	....	8,452 68	57,671 41	43,461 24	101,132 65	50,566 32
1,971 35	564 09	640 36	1,146 58	....	3,333 67	7,656 05	23,528 22	31,184 27	15,530 59
1,758 84	2,269 79	6,058 63	7,304 71	....	3,080 06	20,472 03	34,493 23	54,965 26	27,482 63
13,542 68	....	1,820 87	....	1,000 00	3,337 87	19,701 42	44,295 95	63,997 37	31,998 68
13,493 81	....	4,615 94	....	....	3,150 72	21,260 47	26,136 67	47,397 14	23,698 57
20,977 91	639 81	4,028 39	2,157 26	75 45	6,631 90	34,510 72	49,057 78	83,568 50	41,784 25
....	8,348 93	253 12	....	....	3,487 43	12,089 48	45,044 74	57,134 22	28,567 11
....	....	4,346 51	....	....	2,794 07	7,140 58	33,179 23	40,319 81	20,159 91
32,618 56	....	2,770 39	....	366 30	3,078 94	38,834 19	54,792 86	93,627 05	46,813 52
4,078 70	1,346 15	12,603 40	2,467 60	....	3,744 83	24,240 68	66,810 66	91,051 34	45,525 67
273,262 63	28,588 51	8,436 80	....	....	4,390 96	314,678 90	86,020 15	400,699 05	200,349 52
4,080 40	6,690 89	4,611 31	....	1,400 00	3,305 18	20,087 78	45,161 12	65,248 90	32,624 45
....	....	1,819 14	....	....	3,691 71	5,510 85	28,621 35	34,132 20	17,066 10
40,922 85	....	953 05	....	....	4,348 73	46,224 63	19,145 54	65,370 17	32,685 08
221 70	....	672 73	....	....	3,626 10	4,520 53	13,284 53	17,805 06	8,902 53
24,448 08	....	1,862 50	....	....	4,518 35	30,828 93	99,585 91	130,414 84	65,207 42
3,376 03	....	8,715 56	....	....	4,142 67	16,234 26	49,294 07	65,528 33	32,764 16
3,399 72	....	4,629 32	....	....	4,218 71	12,247 75	60,964 32	73,212 07	36,606 04
15,571 61	2,662 50	7,058 73	....	....	3,204 10	28,496 94	15,904 96	44,401 90	22,200 95
4,967 54	797 89	8,754 21	2,953 16	....	4,998 37	22,471 17	39,171 90	61,643 07	30,821 53
279 42	1,910 94	2,665 06	....	....	4,106 91	8,962 33	49,832 63	58,794 96	29,397 48
871 69	2,942 10	216 09	....	....	3,072 46	7,102 34	21,467 98	28,570 32	14,285 16
8,292 62	149 48	2,175 29	580 06	....	3,192 65	14,390 10	25,186 80	39,576 90	19,788 45
4,337 14	....	4,644 03	....	....	3,088 46	12,069 63	30,190 87	42,260 50	21,130 25
....	220 00	....	....	....	4,422 00	4,642 00	22,064 74	26,706 74	13,353 37
....	....	2,518 19	....	....	2,081 45	4,599 64	23,689 34	28,288 98	14,144 49
....	....	922 73	....	....	4,867 65	5,790 38	57,337 11	63,127 49	31,563 74
16,808 36	4,227 41	2,820 17	....	....	3,609 87	27,465 81	49,705 54	77,171 35	38,585 67
16,715 41	....	2,442 96	....	....	4,197 26	23,355 63	48,655 40	72,011 03	36,005 52
600 38	8,501 83	1,761 96	25,237 07	....	4,051 86	40,153 10	32,737 84	72,890 94	36,445 47
6,352 58	9,012 31	4,297 43	....	....	5,485 36	25,147 68	82,970 76	108,118 44	54,059 22
2,404 95	3,123 20	526 81	....	....	3,645 77	9,700 73	51,255 00	60,955 73	30,477 87
....	1,345 68	1,876 76	....	....	3,120 00	6,342 44	108,158 86	114,501 30	57,250 65
....	....	3,550 38	....	....	6,453 56	10,003 94	92,673 31	102,677 25	51,338 63
127,975 52	687 60	4,431 34	11,773 95	....	9,321 46	154,189 87	114,900 78	269,090 65	134,523 80
713,170 19	210,664 92	144,500 63	58,743 89	2,841 75	154,579 43	1,284,500 81	1,774,122 10	3,058,622 91	1,529,228 37

APPENDIX

SUMMARY

Schedule of Expenditure on Maintenance

For the period beginning January 1st,

Name of County	Brushing and Weed Cutting	Ditching	Grading	Dragging	Culverts (Repairs only)
	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	1,311 91	585 33	35 90	3,697 75	53 20
Bruce	1,965 87	3,029 00	3,489 06	9,588 49	996 41
Carleton	3,984 42	1,733 74	1,125 08	2,243 70	815 75
Dufferin	960 50	423 18	130 56	4,636 64	47 94
Elgin	520 00	880 38	5,462 78	4,194 02	41 65
Essex	2,210 29	1,701 82	929 67	9,557 20	1,223 66
Frontenac	414 32	223 51	2,216 95	519 26	488 42
Grey	3,250 12	1,518 74	1,912 69	5,254 99	286 03
Haldimand	1,873 85	17 90	679 35	1,987 09	498 02
Halton	576 60	1,183 15	240 80	1,875 98	778 75
Hastings	1,214 86	....	7,885 72	5,490 64	773 82
Huron	3,010 22	2,897 99	1,417 04	10,356 30	397 57
Kent	3,644 76	1,871 72	798 22	16,793 06	1,540 48
Lambton	3,002 57	1,763 04	221 45	16,542 62	396 30
Lanark	614 14	588 53	3,826 65	423 32	2,252 31
Leeds and Grenville	1,234 51	67 00	636 00	3,367 33	129 09
Lennox and Addington	529 60	101 05	198 30	43 20	247 30
Lincoln	2,068 60	852 22	546 37	486 36	363 68
Middlesex	2,595 84	584 52	2,131 52	8,667 59	254 78
Norfolk	4,638 68	532 58	315 92	6,077 65	768 07
Northumberland and Durham	877 94	499 91	1,542 35	4,494 26	291 47
Ontario	1,465 42	600 75	627 71	3,921 44	299 86
Oxford	2,337 23	372 17	216 93	5,709 84	326 07
Peel	847 49	1,651 14	239 40	3,177 71	92 68
Perth	1,075 60	339 07	3,506 36	2,665 10	104 50
Peterborough	856 51	57 60	490 22	4,722 73	206 18
Prescott and Russell	1,004 21	375 40	3,500 63	365 91	170 08
Prince Edward	1,008 93	101 45	2,323 05	....	1,310 02
Renfrew	853 77	....	2,484 79	853 30	1,400 28
Simcoe	1,552 05	1,494 12	3,025 91	10,126 11	669 63
Stormont, Dundas and Glengarry	1,991 94	321 19	4,433 08	....	706 80
Victoria	1,029 67	169 50	269 30	5,278 94	175 58
Waterloo	1,598 05	3,898 98	979 96	6,001 57	274 06
Welland	4,223 12	655 40	818 18	5 40	597 89
Wellington	3,123 57	1,340 02	2,885 56	10,108 00	736 44
Wentworth	3,576 23	4,200 46	5,135 72	5,221 87	1,425 95
York	8,361 39	4,006 97	14,397 74	5,796 91	963 41
Totals	75,404 78	40,639 53	81,076 92	180,272 28	22,104 13

No. 8

1933

and Repairs on County Roads

and ending December 31st, 1933

Bridges (Repairs only)	Re-surfacing	Oiling, etc.	Snow Roads	Wire Fence Bonus and Guard Rails	Urban Improvement	Total Expenditure	Subsidy, 50%
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
3 45	20,668 77	....	366 33	161 25	....	26,883 89	13,441 94
3,014 72	16,489 22	13,421 80	2,920 98	....	3,541 27	58,456 82	29,228 41
1,156 15	20,417 26	3,382 55	6,961 99	1,212 80	427 80	43,461 24	21,730 62
280 42	13,985 54	314 56	1,091 30	2 50	1,655 08	23,528 22	11,758 97
827 72	20,581 73	307 92	340 70	1,336 33	....	34,493 23	17,246 62
579 53	13,596 65	8,051 35	17 50	194 48	6,233 80	44,295 95	22,147 97
64 65	11,775 38	8,783 86	1,423 22	227 10	....	26,136 67	13,068 34
352 68	28,809 91	2,269 75	1,666 21	2,417 42	1,319 24	49,057 78	24,528 89
2,101 33	2,959 85	31,722 53	26 60	753 22	2,425 00	45,044 74	22,522 37
227 01	23,111 17	518 48	564 27	142 98	3,960 04	33,179 23	16,589 63
708 24	33,869 92	4,282 11	567 55	....	....	54,792 86	27,396 43
567 55	35,587 60	11,041 88	1,117 27	417 24	....	66,810 66	33,405 34
7,524 12	43,420 93	1,549 00	8 55	869 83	7,999 48	86,020 15	43,010 07
676 95	19,764 87	448 05	173 90	320 36	1,851 01	45,161 12	22,580 55
809 56	16,572 96	....	723 73	371 47	2,438 68	28,621 35	14,310 68
275 66	11,168 84	1,570 83	21 00	214 84	460 44	19,145 54	9,572 77
42 76	3,335 78	8,510 50	38 25	....	237 79	13,284 53	6,642 26
280 03	17,475 87	10,029 43	927 37	1,703 84	64,852 14	99,585 91	49,792 95
2,733 43	28,771 99	1,118 94	993 38	....	1,442 08	49,294 07	24,647 04
1,226 12	40,057 19	944 35	528 40	416 13	5,459 23	60,964 32	30,482 16
737 23	6,380 39	....	786 31	295 10	....	15,904 96	7,952 48
674 02	25,894 00	3,921 14	1,488 52	279 04	....	39,171 90	19,585 95
31 08	34,884 99	2,305 20	1,710 50	13 53	1,925 09	49,832 63	24,916 31
118 68	11,298 17	2,147 76	703 23	1,191 72	....	21,467 98	10,733 99
57 30	15,780 00	....	1,425 24	233 63	....	25,186 80	12,593 40
4,780 95	15,828 91	1,120 40	801 74	....	1,305 63	30,190 87	15,095 43
649 42	13,831 52	....	749 57	....	1,418 00	22,064 74	11,032 37
701 94	12,486 00	370 66	497 65	1,737 25	3,152 39	23,689 34	11,844 67
314 76	10,714 48	5,440 32	556 02	282 22	34,437 17	57,337 11	28,668 55
256 49	23,899 60	....	1,304 53	268 45	7,108 65	49,705 54	24,852 78
507 56	22,861 43	13,895 74	758 04	....	3,179 62	48,655 40	24,327 70
559 70	20,365 56	3,647 83	889 18	352 58	....	32,737 84	16,368 92
1,503 63	36,924 86	8,037 67	1,572 40	567 28	21,612 30	82,970 76	41,485 38
650 01	4,194 31	29,765 10	185 04	....	10,160 55	51,255 00	25,627 51
154 74	52,945 67	5,090 83	1,951 13	544 29	29,278 61	108,158 86	54,079 43
119 42	53,087 96	13,629 27	3,475 52	....	2,800 91	92,673 31	46,336 66
638 52	67,815 74	....	12,920 10	....	....	114,900 78	57,428 87
35,907 53	851,615 02	197,639 81	52,253 22	16,526 88	220,682 00	1,774,122 10	887,034 41

APPENDIX

Summary of Expenditure

The following schedule shows in detail the work and approved expenditure on Township

Year	No. of Twps.	General Expenditure				
		Roads and Culverts	Bridges	Maintenance	Machinery	Purchase of Gravel Pits
		$ c.	$ c.	$ c.	$ c.	$ c.
1920.......	172	432,618 62	270,596 52	828,027 27	91,704 24	8,513 47
1921.......	294	844,829 42	501,650 14	1,888,048 75	142,316 18	12,420 81
1922.......	312	774,336 84	374,158 51	1,832,200 75	87,936 37	23,573 06
1923.......	315	665,101 32	420,451 17	1,720,273 23	82,020 62	30,453 57
1924.......	320	725,631 40	334,348 63	1,861,036 56	95,758 21	12,727 08
1925.......	272	930,129 31	249,633 82	1,720,775 30	121,874 98	7,886 11
1926.......	295	1,379,063 62	282,968 54	2,154,503 96	188,804 36	33,251 25
1927.......	307	1,820,991 31	322,023 33	2,583,130 89	226,160 80	23,918 64
1928.......	324	2,153,376 26	259,421 34	2,690,025 09	272,743 58	17,539 10
1929.......	337	2,275,479 10	695,807 95	2,933,846 90	278,527 99	32,756 55
1930	342	2,295,855 44	369,015 98	2,684,547 12	241,648 16	35,279 17
1931.......	344	1,067,834 87	190,836 16	2,617,986 13	172,126 25	10,386 87
1932.......	343	608,807 25	94,891 52	2,085,775 69	115,493 81	6,952 47
1933.......	338	489,075 48	152,183 25	1,561,755 24	75,040 23	9,485 80
Totals.......		16,463,130 24	4,517,986 86	29,161,932 88	2,192,155 78	265,143 95

No. 9

on Township Roads

Roads to the end of 1933, under the provisions of The Highway Improvement Act.

		Superintendence		Total Approved Expenditure	Total Government Grant
Approved Expenditure	Government Grant	Approved Expenditure	Government Grant		
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,631,460 12	326,291 95	36,703 60	14,681 43	1,668,163 72	340,973 38
3,389,265 30	677,852 90	76,585 03	30,634 01	3,465,850 33	708,486 91
3,092,205 53	618,440 93	77,901 44	31,160 55	3,170,106 97	649,601 47
2,918,299 91	583,659 65	75,945 51	30,378 23	2,994,245 42	614,037 88
3,029,501 88	605,900 35	82,599 41	33,039 76	3,112,101 29	638,940 11
3,030,299 52	906,559 91	164,146 58	82,073 38	3,194,446 10	988,633 29
4,038,591 73	1,219,741 01	194,317 68	97,405 16	4,232,909 41	1,317,146 17
4,976,224 97	1,504,718 50	228,349 52	114,451 24	5,204,574 49	1,619,169 74
5,393,105 37	1,673,180 47	258,554 60	129,460 17	5,651,659 97	1,802,640 64
6,216,418 49	1,960,756 75	288,782 35	144,984 66	6,505,200 84	2,105,741 41
5,626,345 87	2,304,954 18	291,311 41	146,379 92	5,917,657 28	2,451,334 10
4,059,170 28	1,675,101 43	259,146 92	130,557 08	4,318,317 20	1,805,658 51
2,911,920 74	1,201,805 37	225,323 85	113,220 18	3,137,244 59	1,315,025 55
2,287,540 00	889,429 05	195,833 91	98,913 04	2,483,373 91	988,342 09
52,600,349 71	16,148,392 44	2,455,501 81	1,197,338 81	55,055,851 52	17,345,731 25

APPENDIX No. 10

NAME OF COUNTY	ASSESSMENT				OUTSTANDING DEBT							
	EQUALIZED		LOCAL		DEBENTURE DEBT AT END OF 1933							
	Amount	Per Acre	Amount	Per Acre	The King's Highway	County Roads	Limit of County Road Debentures (5%)	Total for King's Highway and County Roads	% of Equal. Assess.	Per Capita	Per Mile of King's Highway and County Roads	Total Debenture Debt for All Purposes
	$	$	$	$	$	$	$	$	%	$ c.	$ c.	$
Brant	19,826,800	92	15,755,384	73	174,900	107,647	991,340	282,547	1.43	14 28	1,916 87	290,693
Bruce	28,639,030	30	30,222,334	32	....	5,597	1,431,951	5,597	0.02	0 13	15 63	41,788
Carleton	28,926,681	52	22,818,821	41	707,381	864,237	1,446,334	1,571,618	5.43	39 53	4,364 15	2,063,287
Dufferin	13,364,550	37	11,489,540	32	188,324	....	668,227	188,324	1.41	12 73	1,009 24	188,324
Elgin	31,000,374	70	25,372,453	57	....	....	1,550,018	....	......	......	....	....
Essex	68,314,573	158	80,313,381	187	....	212,318	3,415,729	212,318	3.10	3 01	533 00	330,041
Frontenac	7,268,850	11	6,129,099	9	263,120	....	253,076	263,120	3.60	14 83	1,183 09	263,120
Grey	34,850,000	32	27,266,942	25	265,000	200,000	1,742,500	465,000	1.33	10 65	1,399 55	545,000
Haldimand	11,920,410	42	14,973,388	52	245,939	135,936	596,020	381,875	3.20	18 46	1,770 00	481,013
Halton	31,913,780	140	22,238,614	97	193,883	433,573	1,595,689	627,456	1.97	24 29	3,487 80	632,788
Hastings	18,354,800	17	17,248,654	16	....	95,259	917,740	95,259	0.53	2 77	2,231 73	104,058
Huron	44,271,175	55	41,030,664	51	70,000	....	2,213,558	70,000	0.16	1 60	157 83	70,000
Kent	44,330,130	77	37,297,813	65	....	....	2,216,506	....	......	......	....	....
Lambton	31,126,000	46	30,599,446	45	....	....	1,556,630	....	......	......	....	....
Lanark	15,000,000	22	13,921,401	20	269,019	578,957	750,000	847,976	5.65	34 13	2,631 27	847,977
Leeds and Grenville	17,672,000	23	17,330,936	23	148,067	345,649	883,600	493,716	2.80	16 29	1,153 20	493,716
Lennox and Addington	9,673,295	22	9,299,344	22	84,583	428,566	481,864	513,149	5.30	30 38	2,722 27	524,245
Lincoln	19,772,760	101	18,792,152	96	127,694	531,758	988,638	659,452	3.34	23 60	3,504 93	659,452
Middlesex	51,045,045	67	44,473,522	58	614,120	224,989	2,552,252	839,109	1.65	19 30	1,565 00	849,969
Norfolk	27,810,000	70	20,343,534	52	177,122	250,577	1,390,500	427,699	1.54	14 37	1,639 60	437,231
Northumberland and Durham	35,963,000	44	32,556,229	40	265,843	536,565	1,798,150	802,408	2.23	15 14	2,326 50	815,003
Ontario	24,358,649	47	24,536,087	48	513,267	119,550	1,217,932	632,817	2.60	18 71	2,157 58	667,819
Oxford	28,632,200	60	28,417,830	60	....	118,367	1,431,610	118,367	.40	4 00	475 00	118,367
Peel	19,949,000	68	20,676,697	71	307,168	240,857	997,450	548,025	2.75	20 82	2,634 74	556,156
Perth	35,107,419	67	30,850,645	59	....	....	1,755,370	....	......	......	....	....
Peterborough	10,094,318	17	9,954,253	17	49,014	....	514,716	49,014	.49	2 57	260 00	94,210
Prescott and Russell	20,555,591	37	18,427,678	33	....	1,078,224	1,027,779	1,078,224	5.24	26 47	4 068 77	1,078,224

Prince Edward........	15,000,000	63	12,246,993	52	55,633	73,002	750,000	128,635	.86	8 60	794 04	128,635
Renfrew.............	28,460,228	26	22,989,842	21	248,421	635,207	1,423,012	883,628	3.11	17 59	3,239 00	883,628
Simcoe...............	59,835,000	61	50,816,016	52	....	....	2,991,750	....	....	....	....	....
Stormont, Dundas and Glengarry..........	39,907,768	51	39,864,159	51	217,396	428,482	1,995,388	645,878	1.60	10 04	1,522 16	645,878
Victoria..............	22,471,860	37	18,151,283	30	146,151	67,216	1,034,916	213,367	.95	8 61	1,075 44	260,123
Waterloo.............	38,227,000	122	31,572,660	101	54,745	....	1,911,350	54,745	.14	1 24	263 83	172,838
Welland..............	42,912,113	189	48,142,259	213	....	173,819	2,145,606	173,819	.41	3 45	884 30	173,819
Wellington...........	35,986,278	56	29,737,579	47	....	....	1,771,285	....	....	....	....	....
Wentworth...........	42,224,733	158	25,700,943	96	744,558	6,627	2,111,237	751,185	1.78	25 96	2,833 05	783,270
York................	120,285,047	221	131,410,899	243	877,000	625,000	6,014,252	1,502,000	1.25	6 94	4,000 32	1,585,000
Totals...........	1,175,050,457		1,082,969,474		7,008,348	8,517,979	58,533,975	15,526,327	1.32	10 44	1,411 80	16,785,672

APPENDIX No. 11

SUMMARY OF 1933 COUNTY LEVIES ON BASIS OF EQUALIZED ASSESSMENT

Name of County	Equalized Assessment		Roads and Bridges					Other Purposes			Total Levy
			The King's Highways		County Roads and Bridges		Total	Educational	Miscellaneous	Totals	
	Total	Per Acre	Current	Debentures	Current	Debentures					
	$	$	Mills	Mills	Mills	Mills	Mills	Mills	Mills	Mills	Mills
Brant	19,826,800	92	1.77	0.66	1.29	1.28	5.00	1.94	1.31	3.25	8.25
Bruce	28,639,030	30	0.38	....	1.50	0.13	2.01	2.36	4.38	6.74	8.75
Carleton	28,926,681	52	0.17	2.82	0.61	6.19	9.79	2.70	5.26	7.96	17.75
Dufferin	13,364,550	37	0.19	1.56	1.40	....	3.15	1.90	3.05	4.95	8.10
Elgin	31,000,374	70	1.07	....	0.88	....	1.95	1.88	1.92	3.80	5.75
Essex	68,314,573	158	0.53	....	1.00	0.85	2.38	1.63	2.54	4.17	6.55
Frontenac	7,268,850	11	....	6.00	3.50	....	9.50	4.80	8.20	13.00	22.50
Grey	34,850,000	32	0.75	0.61	1.00	0.70	3.06	2.13	2.31	4.44	7.50
Haldimand	11,920,410	42	....	2.87	2.50	1.67	7.04	3.94	7.02	10.96	18.00
Halton	31,913,780	140	0.34	0.91	0.60	2.10	3.95	2.14	1.61	3.75	7.70
Hastings	18,354,800	17	2.00	....	2.00	0.80	4.80	3.11	6.09	9.20	14.00
Huron	44,271,175	55	0.71	0.29	1.20	....	2.20	1.64	2.16	3.80	6.00
Kent	44,330,130	77	0.33	....	2.55	....	2.88	1.89	1.78	3.67	6.55
Lambton	31,126,000	46	0.31	....	0.78	....	1.09	2.57	1.85	4.42	5.51
Lanark	15,000,000	22	0.65	1.96	1.17	5.07	8.85	2.67	2.98	5.65	14.50
Leeds and Grenville	17,672,000	23	2.43	1.61	4.00	2.54	10.58	4.09	3.78	7.87	18.45
Lennox and Addington	9,673,295	22	0.75	1.55	4.55	5.00	11.85	2.40	6.75	9.15	21.00
Lincoln	19,772,760	101	0.38	0.78	1.20	5.50	7.86	4.79	6.08	10.87	18.73
Middlesex	51,045,045	67	0.23	1.56	0.49	0.59	2.87	2.18	2.95	5.13	8.00
Norfolk	27,810,000	70	0.60	....	1.30	2.40	4.30	2.01	2.24	4.25	8.55
Northumberland and Durham	35,963,000	44	0.59	0.93	0.60	1.51	3.63	3.03	3.34	6.37	10.00
Ontario	24,358,649	47	0.44	1.68	1.60	0.70	4.42	2.66	3.31	5.97	10.39
Oxford	28,632,200	60	1.37	....	1.05	0.94	3.36	1.68	1.76	3.44	6.80
Peel	19,949,000	68	0.22	2.57	1.00	2.09	5.88	3.30	2.77	6.07	11.95
Perth	35,107,419	67	1.42	....	0.31	....	1.73	1.14	1.63	2.77	4.50
Peterborough	10,094,318	17	1.09	0.84	1.96	....	3.89	3.76	7.35	11.11	15.00
Prescott and Russell	20,555,591	37	....	....	2.00	7.50	9.50	4.00	4.07	8.07	17.57
Prince Edward	15,000,000	63	0.38	0.41	1.16	1.00	2.95	1.97	1.58	3.55	6.50
Renfrew	28,460,228	26	0.25	1.27	0.14	4.11	5.77	2.46	6.02	8.48	14.25

Simcoe	59,835,000	61	1.70	......	0.75	......	2.45	2.00	2.85	4.85	7.30
Stormont, Dundas and Glengarry	39,907,768	51	0.94	0.82	0.94	1.21	3.91	2.71	3.02	5.73	9.64
Victoria	22,471,860	37	0.32	0.55	1.21	1.25	3.33	1.27	3.05	4.32	7.65
Waterloo	38,227,000	122	......	1.05	2.00	......	3.05	1.65	2.95	4.60	7.65
Welland	42,912,113	189	1.07	......	1.13	1.05	3.25	2.73	2.77	5.50	8.75
Wellington	35,986,278	56	1.45	......	1.20	......	2.65	1.53	1.82	3.35	6.00
Wentworth	42,224,733	158	0.16	1.94	0.95	0.30	3.35	1.60	1.91	3.51	6.86
York	120,285,047	221	0.08	0.71	0.99	0.42	2.20	3.97	3.83	7.80	10.00

APPENDIX No. 12

SUMMARY OF COUNTY AND TOWNSHIP LEVIES, 1933

NAME OF COUNTY	TOWNSHIP ASSESSMENTS (Exclusive of Urban Assessments)		COUNTY LEVY BASED ON EQUALIZED ASSESSMENT							TOWNSHIP LEVY BASED ON TOWNSHIP ASSESSMENT					TOTAL ROAD LEVY	PERCENT OF ROAD LEVY TO TOTAL LEVY
	Equalized	Local	KING'S HIGHWAY		COUNTY ROADS		Education	Miscellaneous	Total	County Levy	Twp. Roads	Education	Miscellaneous	Total Levy		
			Debent.	Current	Debent.	Current										
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	%
Brant	16,752,000	13,019,549	11,056	29,651	21,445	21,618	32,490	21,944	138,204	138,596	32,108	98,303	94,203	363,210	115,878	31.9
Bruce	23,223,034	22,596,937	......	8,848	3,014	35,014	56,226	100,321	203,423	205,596	63,406	122,708	82,322	474 032	110,282	23.2
Carleton	25,046,584	17,895,656	70,181	4,630	154,975	15,321	67,569	131,976	444,652	437,242	41,587	226,534	195,392	900,755	286,694	31.8
Dufferin	11,316,943	8,883,349	17,754	2,122	......	15,942	21,634	34,731	92,183	95,275	25,654	76,861	40,064	237,854	61,472	25.4
Elgin	27,339,002	21,490,789	......	29,255	......	24,058	51,399	52,513	157,225	157,603	45,866	104,387	99,878	407,734	99,179	24.3
Essex	42,110,744	36,127,252	......	22,192	35,912	42,111	68,430	107,298	275,943	302,836	44,950	241,762	539,812	1,129,360	145,165	12.8
Frontenac	5,789,955	4,693,112	31,582	......	......	16,581	27,792	47,475	123,430	120,307	11,640	51,066	37,655	220,668	59,803	27.1
Grey	30,730,000	23,674,137	18,907	23,046	21,735	30,730	64,770	71,286	230,474	236,944	83,777	157,907	96,632	575,260	178,195	30.9
Haldimand	10,335,410	10,535,065	29,662	......	17,260	25,839	40,723	72,553	186,037	186,616	28,592	58,854	42,815	316,877	101,353	31.9
Halton	21,265,908	12,627,789	19,352	7,230	48,986	12,760	45,509	34,238	168,075	170,667	51,725	62,320	96,332	381,044	140,053	36 7
Hastings	9,860,600	9,348,131	......	19,921	7,969	19,921	30,978	60,660	139,449	139,904	16,136	67,682	26,178	249,900	63,947	21.5
Huron	38,103,285	33,711,432	11,230	27,006	......	45,125	62,488	82,302	228,151	229,299	73,975	155,592	132,570	591,436	157,336	26.7
Kent	38,508,890	29,073,327	......	12,515	......	98,198	72,783	68,738	252,234	252,720	78,125	154,057	368,999	853,901	188,838	22.1
Lambton	27,640,600	25,144,967	......	8,455	......	21,575	71,024	51,225	152,279	153,678	56,857	127,417	209,967	547 919	86,887	15.8
Lanark	9,335,500	7,372,668	18,313	6,074	46,478	10,933	24,950	27,846	134,594	136,660	19,767	67,682	29,442	253,551	101,565	40.5
Leeds and Grenville	14,691,580	12,683,657	23,678	35,746	36,726	58,767	60,061	56,463	271,441	271,136	34,557	130,065	84,935	520 153	189,474	36.4
Lennox and Addington	5,556,213	4,471,196	8,596	4,160	27,731	23,278	13,310	37,437	114,512	116,179	8,459	37,586	22,243	184,467	72,224	39.1
Lincoln	14,258,035	12,111,550	11,080	5,399	78,144	17,050	68,056	86,386	266,115	265,965	49,566	121,210	92,326	529,067	161,239	30.4
Middlesex	47,528,687	39,435,795	74,137	11,076	27,910	23,242	103,745	140,185	380,295	382,264	80,161	177,360	156,011	795,796	216,526	27 2
Norfolk	20,327,700	13,459,008	......	12,201	48,694	26,425	14,128	76,210	177,658	182,193	34,195	92,494	50,935	359,817	121,515	33.7
Northumberland and Durham	24,642,310	20,479,946	22,919	14,538	37,209	14,685	74,667	82,306	246,323	246,918	66,736	161,347	96,694	571,695	156,087	27.3
Ontario	19,091,789	18,853,307	32,059	8,374	13,336	30,671	50,771	63,155	198,366	198,385	55,178	145,024	126,655	525,242	139,618	26.6
Oxford	25,521,300	24,658,417	......	35,654	24,069	26,740	42,785	44,917	174,165	178,654	39,819	137,670	80,727	436,870	126,282	28.9
Peel	14,972,000	13,144,913	38,528	3,293	32,415	14,972	49,482	41,323	180,013	181,092	35,595	118,661	153,678	489,026	124,803	25.5
Perth	32,016,995	26,663,595	......	45,388	......	10,032	35,880	52,238	143,538	145,343	53,218	98,587	90,690	387,838	108,638	28.0
Peterborough	8,853,021	7,768,315	7,436	9,651	......	17,350	33,286	65,071	132,794	133,619	21,330	65,178	34,848	254,975	55,767	21.8
Prescott and Russell	17,963,401	14,108,342	......	......	134,725	35,926	71,853	73.112	315,616	317,464	53,298	134,246	92,220	597,228	223,949	37.4
Prince Edward	10,727,000	8,211,486	4,399	4,096	12,442	10,727	21,132	16,951	69,747	69.804	12,980	50,560	27,098	160,442	44,644	27.8
Renfrew	13,686,120	8,356,264	17,381	3,423	56,250	1,914	33,668	82,392	195,028	43,832	4,554	14,667	8,346	71,399	83.522	......
Simcoe	23,165,000	18,075,809	......	39,277	......	17,332	46,210	65,847	168,666	167,953	59,290	128,173	95,879	451,295	115,899	25.2
Stormont, Dundas and Glengarry	27,748,850	26,464,087	22,754	26,083	33,575	26,083	75,399	83,800	267,694	266,095	70,375	234,968	188,358	759,796	178,870	23.5
Victoria	10,432,526	8,007,825	5,716	3,329	13,035	12,651	13,221	31,856	79,808	79,908	23,101	52,036	16,759	171,804	57,832	33.6
Waterloo	21,053,000	16,654,383	22,205	......	......	42,106	33,685	63,159	161 155	164,105	42,703	109,890	77,103	393,801	107,014	27.1
Welland	27,982,467	26,631,984	......	29,942	29,382	31,620	76,392	77,511	244,847	239,814	77,989	247,461	384,946	950,210	168,933	17.7
Wellington	28,782,570	23,837,357	......	41,740	......	34,543	45,045	52,388	173,716	177,928	46,464	123,750	74.219	422,361	122,747	29.0
Wentworth	36,686,853	21,019,500	69,706	7,337	11,006	36,685	58,685	69,702	253,121	252,880	38,311	126,372	104,448	522,011	163,045	31.2
York	87,452,894	94,321,335	62,417	7,271	36,740	86,373	430,826	334,708	958,335	973,480	499,017	1,586,072	3,776,235	6,834,804	691,818	10 1
Grand Totals	870,498,766	735,612,231	651,048	548,923	1,011,163	1,034,898	2,191,052	2,662,222	8,099,306	8,018,954	2,081,061	5,866,509	7,927,074	23,893,598	5,327,093	22.9

Report of Motor Vehicles Branch, 1933

To the Honourable T. B. McQuesten,
Minister of Highways.

Sir:—I have the honour to submit herewith the Annual Report of the Motor Vehicles Branch for the year 1933.

A detailed statement of the revenue derived from all sources during the fiscal year, duly verified by the Provincial Auditor, is attached. Statements showing details of motor vehicle registrations and drivers' licences, and an analysis of the motor vehicle accident reports filed with this Department, together with data regarding the suspension and revocation of licenses and permits, are also appended. The latter reports include comment on various phases of the accident situation and the operation of the Financial Responsibility Law and on the work of these two important divisions. With the exception of the revenue statements, all statistics cover the calendar year.

Registrations and Drivers' Licenses

The total number of permits and licenses issued by this Branch during 1933 was 1,300,966, a figure 15,529 or 1.2% smaller than the 1932 total. Passenger car registrations were down 2.1%, commercial vehicle registrations down 2.6%, and operators' licenses down 3.2%. On the other hand, trailer registrations increased by 26.3%, and the number of chauffeurs' licenses was up 3.1%. The total number of vehicle permits issued was 537,741, while drivers' licenses of all classes totalled 692,084.

Revenue

The net revenue of the Branch during the fiscal year, ending October 31st, 1933, amounted to $7,421,159.84, a sum $44,487.11 higher than was collected during the previous year.

Public Vehicles

The number of buses licensed to be operated as public vehicles declined during 1933 to a total of 494. This reduction in number was due in part to the more economical use of licensed vehicles and partly to the elimination of some operations. That the former was responsible for at least half the reduction may be seen from the fact that while the number of vehicles was reduced by 16%, revenue, indicative of the extent of operations, declined only 8%. The total revenue for the year amounted to $104,043.66.

Public Commercial Vehicles

Despite adverse economic conditions, the number of vehicles licensed for the transportation of freight over the highways increased sharply. In 1932 P.C.V. licenses numbered 3,383, while in 1933 the total advanced to 4,235. Revenue also increased to a record total of $91,033.64. The number of operators and vehicles licensed in the various classifications is shown in the following table:

Class	Operators	Vehicles
A	232	1,383
B	133	173
C	353	710
D	115	330
E	1,406	1,639

Financial Responsibility Division

During the year 1933 this division dealt with 4,106 suspension cases arising out of the Financial Responsibility provisions of the Highway Traffic Act, and 507 other suspensions imposed by magistrates or the Minister of Highways for other causes. The total number of Financial Responsibility suspensions imposed between September 1st, 1930, and December 31st, 1933, was 10,974. During 1933, 2,059 suspension orders were lifted, bringing the total of those who had filed proof of financial responsibility during the life of the Act to 5,292. At the end of the year there were 5,682 individuals whose ownership permits and drivers' licenses were under suspension.

Accident Reporting and Publicity Division

The greatest improvement in the accident situation recorded in any year since the motor vehicle became a traffic factor of serious importance, was achieved during 1933 when the number of fatalities resulting from motor vehicle accidents was shown at 403, a figure almost twenty per cent below the 1932 total of 502, and 168 lower than the 1931 total of 571. There was a decrease also in the total number of accidents reported and in the number of persons injured.

In all, reports of 8,634 serious accidents were received by this division during the year. Of these, 372 resulted in the death of one or more persons, 5,965 brought injury to 7,877 persons, while 2,297 resulted in property damage only. (The reported accidents resulting in property damage only, do not include accidents in which the damage did not amount to more than $50.)

With the increasing volume of records, accident-prone drivers have been revealed in ever-increasing numbers. At the close of the year the number of accident repeaters, i.e., drivers involved in more than one reportable accident, numbered 1,858.

Safety educational work included the use of newspaper advertising, billboards, radio and schools. A series of weekly radio addresses covering a period of some thirty weeks was prepared, and, in addition to the paid advertising, some twenty-five news releases were forwarded to the daily papers of the Province.

Eastern Conference of Motor Vehicle Administrators

Last year the Registrar of Motor Vehicles attended semi-annual meetings of this organization at Detroit and Chicago. At the October meeting he was elected to the presidency.

The Eastern Conference of Motor Vehicle Administrators has now been expanded to include all the provinces and states under the name of the American Conference of Motor Vehicle Administrators. This conference is subdivided into regional conferences. The Pacific Coast section includes British Columbia; the Prairie Provinces are members of the mid-western section, while Ontario and the provinces to the east are included in the Eastern Section.

The pooling of experience of the various administrators and the opportunity to discuss and study the problems of the different jurisdictions represented, have proved of considerable value. Much headway has been made in the matter of uniformity of laws and also in securing reciprocity for the use of licenses and permits by touring motorists. In addition, the personal contacts made with other administrators, and the realization of their problems and difficulties has contributed to a spirit of goodwill among the representatives of the provinces and states which serves to minimize friction when contentious questions arise between the various jurisdictions.

One of the outstanding undertakings of the Eastern Conference has been the sponsoring of financial or safety responsibility legislation in co-operation with the American Automobile Association. This form of compulsory insurance legislation has been found the most satisfactory safety legislation yet devised, and, under the joint sponsorship of the Eastern Conference and the A.A.A., has been adopted in 21 states and 8 Canadian provinces. In this respect the Ontario experience has been an important factor in "selling" this legislation to other jurisdictions, and it is interesting to note the remarks of the Chairman of the A.A.A. Safety Responsibility Committee regarding the administration and achievements of the Ontario provisions. He said in part: "As an example of what may be expected, the experience of the Province of Ontario with its Safety Responsibility Law is worth recording. The Ontario law closely parallels the A.A.A. Model Bill, and has had the advantage of a splendid administration. There was recently issued a statement outlining the experience with the Ontario law during the first sixteen months of its operation. This experience positively showed that the law is compelling the reckless operator to protect the public by establishing his financial responsibility; that it is prohibiting the use of the highway to the operator whose recklessness has been proved, and who has failed to establish proof of his responsibility to respond to damages he may cause, that the threat of loss of driving rights under the law is proving a strong incentive to the payment by a motorist of damages resulting from his careless operation of a motor vehicle."

Respectfully submitted,

J. P. Bickell,
Registrar of Motor Vehicles.

1933 STATISTICS

MOTOR VEHICLE REGISTRATIONS

Automobile permits	453,314
Commercial permits	59,760
Convertible permits	2,909
Trailer permits	16,311
Motorcycle permits	4,370
Automobile dealers' permits	997
Commercial dealers' permits	61
Motorcycle dealers' permits	19
Operators	470,195
Instruction permits	53,804
Motorcycle Operators	911
Chauffeurs	167,174
In Transits	10,664
Transfers	55,748
Public Vehicles	494
Public commercial vehicles	4,235

SUMMARY OF REGISTRATION OF MOTOR VEHICLES

By Type and by County

1933

County	Passenger	Commercial	Two-Purpose	Trailer	Motorcycles	Total.	Per cent of Total Registrations
Algoma	4.415	717	15	186	32	5,365	1.00
Brant	6,907	1,080	86	336	38	8,447	1.57
Bruce	6,613	456	34	277	17	7,397	1.38
Carleton	19,750	2,339	119	543	274	23,025	4.29
Cochrane*	......	....	....	.....	....	......	.....
Dufferin	2,370	192	15	92	14	2,683	.50
Dundas	2,345	216	9	65	19	2,654	.49
Durham	3,852	383	71	149	29	4,484	.83
Elgin	7,171	747	71	409	43	8,441	1.57
Essex	21,644	3,059	84	927	100	25,814	4.81
Frontenac	6,124	875	67	183	62	7,311	1.36
Glengarry	1,907	176	10	30	8	2,131	.40
Grenville	2,194	277	23	54	11	2,559	.48
Grey	7,880	611	57	221	25	8,794	1.64
Haldimand	4,205	413	11	192	22	4,843	.90
Haliburton	531	57	....	5	4	597	.11
Halton	4,464	635	54	158	44	5,355	1.00
Hastings	9,022	1,042	79	330	55	10,528	1.96
Huron	7,321	556	44	405	48	8,374	1 56
Kenora	1,151	318	6	46	9	1,530	.29
Kent	10,837	1,392	68	551	37	12,885	2.40
Lambton	9,435	777	59	512	54	10,837	2.02
Lanark	4,468	379	47	160	29	5,083	.95
Leeds	4,922	634	63	154	24	5,797	1.08
Lennox and Addington	2,708	300	18	111	14	3,151	.59
Lincoln	8,056	1,661	84	270	74	10,145	1.89
Manitoulin	988	69	3	5	4	1,069	.20
Middlesex	20,295	2,329	135	863	171	23,793	4.43
Muskoka	2,481	339	24	81	18	2,943	.55
Nipissing	3,769	545	19	98	27	4,458	.83
Norfolk	5,207	705	40	333	45	6,330	1.18
Northumberland	4,637	602	35	165	24	5,463	1.02
Ontario	8,239	925	50	355	93	9,662	1.80
Oxford	9,371	1,055	101	404	82	11,013	2.05
Parry Sound	2,126	306	22	41	8	2,503	.47
Peel	4,958	919	26	177	49	6,129	1.14
Perth	7,867	719	40	369	61	9,056	1.69
Peterborough	6,105	755	66	209	34	7,169	1.34
Prescott	1,668	198	22	42	10	1,940	.36
Prince Edward	2,822	365	6	120	18	3,331	.62
Rainy River	1,136	282	22	83	2	1,525	.28
Renfrew	5,086	472	28	167	30	5,783	1.08
Russell	1,207	279	14	45	6	1,551	.29
Simcoe	11,014	1.209	133	354	62	12,772	2.38
Stormont	3,439	402	28	105	45	4,019	.75
Sudbury	3,916	512	18	33	16	4,495	.84
Thunder Bay	5,630	1,068	18	121	34	6,871	1.28
Temiskaming*	5.556	606	47	124	84	6,417	1.19
Victoria	4,190	572	48	155	15	4,980	.93
Waterloo	12,698	1,546	67	507	151	14,969	2.79
Welland	12,043	1,786	126	406	124	14.485	2.70
Wellington	8,492	837	81	267	43	9,720	1.81
Wentworth	24,211	4.156	84	865	196	29,512	5.50
York	113,518	16,683	411	3.350	1,830	135.792	25.30
Foreign	353	227	1	101	2	684	.13
TOTAL	453,314	59.760	2,909	16,311	4,370	536,664	100.00

*Registrations for Districts of Cochrane and Temiskaming are combined.

DISTRIBUTION OF MOTOR VEHICLES

By City and Type

City	Passenger	Commercial	Two-Purpose	Trailer	Motorcycles	Total	Per cent of Total Registrations
Belleville	2,052	305	30	98	31	2,516	.47
Brantford	3,715	671	48	159	18	4,611	.86
Chatham	2,767	477	17	145	8	3,414	.64
Fort William	2,377	461	4	65	20	2,927	.54
Galt	1,822	239	13	46	17	2,137	.40
Guelph	2,748	403	40	60	22	3,273	.61
Hamilton	19,319	3,003	49	667	141	23,179	4.32
Kingston	3,348	512	22	109	57	4,048	.75
Kitchener	4,220	587	12	155	81	5,055	.94
London	11,999	1,507	62	386	145	14,099	2.63
Niagara Falls	3,459	463	20	97	23	4,062	.76
North Bay	1,510	264	....	49	10	1,833	.34
Oshawa	3,248	373	13	146	52	3,832	.71
Ottawa	15,214	1,752	43	310	226	17,545	3.27
Owen Sound	1,677	185	11	37	2	1,912	.36
Peterborough	3,033	523	28	119	28	3,731	.69
Port Arthur	2,146	381	8	32	7	2,574	.48
St. Catharines	3,832	690	27	136	38	4,723	.88
St. Thomas	2,429	237	14	120	25	2,825	.52
Sarnia	2,896	274	12	109	29	3,320	.62
Sault Ste. Marie	2,208	361	5	134	15	2,723	.50
Stratford	2,315	281	21	106	24	2,747	.51
Sudbury	2,828	333	1	27	14	3,203	.60
Toronto	97,059	13,948	270	2,747	1,578	115,602	21.54
Welland	1,653	253	18	34	25	1,983	.37
Windsor	9,137	1,378	25	290	58	10,888	2.03
Woodstock	2,383	209	12	52	26	2,682	.50
TOTAL CITIES	211,394	30,070	825	6,435	2,720	251,444	46.84
TOTAL ONTARIO	453,314	59,760	2,909	16,311	4,370	536,664	100.00

PASSENGER CARS REGISTERED, 1933

Counties		Cities		Total
Algoma	2,207	Sault Ste. Marie	2,208	4,415
Brant	3,192	Brantford	3,715	6,907
Bruce	6,613		....	6,613
Carleton	4,536	Ottawa	15,214	19,750
Dufferin	2,370		....	2,370
Dundas	2,345		....	2,345
Durham	3,852		....	3,852
Elgin	4,742	St. Thomas	2,429	7,171
Essex	12,507	Windsor	9,137	21,644
Frontenac	2,776	Kingston	3,348	6,124
Glengarry	1,907		....	1,907
Grenville	2,194		....	2,194
Grey	6,203	Owen Sound	1,677	7,880
Haldimand	4,205		....	4,205
Haliburton	531		....	531
Halton	4,464		....	4,464
Hastings	6,970	Belleville	2,052	9,022
Huron	7,321		....	7,321
Kenora	1,151		....	1,151
Kent	8,070	Chatham	2,767	10,837
Lambton	6,539	Sarnia	2,896	9,435
Lanark	4,468		....	4,468
Leeds	4,922		....	4,922
Lennox and Addington	2,708		....	2,708
Lincoln	4,224	St. Catharines	3,832	8,056
Manitoulin	988		....	988
Middlesex	8,296	London	11,999	20,295
Muskoka	2,481		....	2,481
Nipissing	2,259	North Bay	1,510	3,769
Norfolk	5,207		....	5,207
Northumberland	4,637		....	4,637
Ontario	4,991	Oshawa	3,248	8,239
Oxford	6,988	Woodstock	2,383	9,371
Parry Sound	2,126		....	2,126
Peel	4,958		....	4,958
Perth	5,552	Stratford	2,315	7,867
Peterborough	3,072	Peterborough	3,033	6,105
Prescott	1,668		....	1,668
Prince Edward	2,822		....	2,822
Rainy River	1,136		....	1,136
Renfrew	5,086		....	5,086
Russell	1,207		....	1,207
Simcoe	11,014		....	11,014
Stormont	3,439		....	3,439
Sudbury	1,088	Sudbury	2,828	3,916
Thunder Bay	1,107	Fort William Port Arthur	2,377 2,146	5,630
Temiskaming	5,556		....	5,556
Victoria	4,190		....	4,190
Waterloo	6,656	Galt Kitchener	1,822 4,220	12,698
Welland	6,931	Niagara Falls Welland	3,459 1,653	12,043
Wellington	5,744	Guelph	2,748	8,492
Wentworth	4,892	Hamilton	19,319	24,211
York	16,459	Toronto	97,059	113,518
Foreign	353		....	353
	241,920		211,394	453,314

PASSENGER CARS

Cylinders and Horsepower

Four cylinders	224,968	
Six cylinders (under 28 horsepower)	187,169	
Six cylinders (over 28 horsepower)	16,393	
Eight cylinders (under 35 horsepower)	19,836	
Eight cylinders (over 35 horsepower)	3,923	
Twelve cylinders	128	
Sixteen cylinders	31	
Electric	7	
Steam	19	
Free	840	
		453,314

Registrations

Originals	25,508	
Renewals	427,806	
		453,314

COMMERCIAL CARS REGISTERED, 1933

Counties		Cities		Total
Algoma	356	Sault Ste. Marie	361	717
Brant	409	Brantford	671	1,080
Bruce	456		....	456
Carleton	587	Ottawa	1,752	2,339
Dufferin	192		....	192
Dundas	216		....	216
Durham	383		....	383
Elgin	510	St. Thomas	237	747
Essex	1,681	Windsor	1,378	3,059
Frontenac	363	Kingston	512	875
Glengarry	176		....	176
Grenville	277		....	277
Grey	426	Owen Sound	185	611
Haldimand	413		....	413
Haliburton	57		....	57
Halton	635		....	635
Hastings	737	Belleville	305	1,042
Huron	556		....	556
Kenora	318		....	318
Kent	915	Chatham	477	1,392
Lambton	503	Sarnia	274	777
Lanark	379		....	379
Leeds	634		....	634
Lennox and Addington	300		....	300
Lincoln	971	St. Catharines	690	1,661
Manitoulin	69		....	69
Middlesex	822	London	1,507	2,329
Muskoka	339		....	339
Nipissing	281	North Bay	264	545
Norfolk	705		....	705
Northumberland	602		....	602
Ontario	552	Oshawa	373	925
Oxford	846	Woodstock	209	1,055
Parry Sound	306		....	306
Peel	919		....	919
Perth	438	Stratford	281	719
Peterborough	232	Peterborough	523	755
Prescott	198		....	198
Prince Edward	365		....	365
Rainy River	282		....	282
Renfrew	472		....	472
Russell	279		....	279
Simcoe	1,209		....	1,209
Stormont	402		....	402
Sudbury	179	Sudbury	333	512

COMMERCIAL CARS REGISTERED, 1933—*Continued*

Counties		Cities		Total
Thunder Bay	226	Fort William	461	1,068
		Port Arthur	381	
Temiskaming	606		....	606
Victoria	572		....	572
Waterloo	720	Galt	239	1,546
		Kitchener	587	
Welland	1,070	Niagara Falls	463	1,786
		Welland	253	
Wellington	434	Guelph	403	837
Wentworth	1.153	Hamilton	3,003	4,156
York	2,735	Toronto	13,948	16,683
Foreign	227		....	227
	29,690		30,070	59,760

CONVERTIBLE VEHICLES REGISTERED, 1933

Counties		Cities		Total
Algoma	10	Sault Ste. Marie	5	15
Brant	38	Brantford	48	86
Bruce	34		....	34
Carleton	76	Ottawa	43	119
Dufferin	15		....	15
Dundas	9		....	9
Durham	71		....	71
Elgin	57	St. Thomas	14	71
Essex	59	Windsor	25	84
Frontenac	45	Kingston	22	67
Glengarry	10		....	10
Grenville	23		....	23
Grey	46	Owen Sound	11	57
Haldimand	11		....	11
Haliburton	....		....	....
Halton	54		....	54
Hastings	49	Belleville	30	79
Huron	44		....	44
Kenora	6		....	6
Kent	51	Chatham	17	68
Lambton	47	Sarnia	12	59
Lanark	47		....	47
Leeds	63		....	63
Lennox and Addington	18		....	18
Lincoln	57	St. Catharines	27	84
Manitoulin	3		....	3
Middlesex	73	London	62	135
Muskoka	24		....	24
Nipissing	19	North Bay	....	19
Norfolk	40		....	40
Northumberland	35		....	35
Ontario	37	Oshawa	13	50
Oxford	89	Woodstock	12	101
Parry Sound	22		....	22
Peel	26		....	26
Perth	19	Stratford	21	40
Peterborough	38	Peterborough	28	66
Prescott	22		....	22
Prince Edward	6		....	6
Rainy River	22		....	22
Renfrew	28		....	28
Russell	14		....	14
Simcoe	133		....	133
Stormont	28		....	28
Sudbury	17	Sudbury	1	18
Thunder Bay	6	Fort William	4	18
		Port Arthur	8	
Temiskaming	47		....	47
Victoria	48		....	48

CONVERTIBLE VEHICLES REGISTERED, 1933—*Continued*

Counties		Cities		Total
Waterloo	42	Galt Kitchener	13 12	67
Welland	88	Niagara Falls Welland	20 18	126
Wellington	41	Guelph	40	81
Wentworth	35	Hamilton	49	84
York	141	Toronto	270	411
Foreign	1		....	1
	2,084		825	2,909

COMMERCIAL CARS REGISTERED

Tires

Pneumatic	56,783	
Solid	364	
Municipal	1,930	
Ontario Government Dominion Government	683	
		59,760

Gross Weights—Pneumatic Tires

Less than two tons	22,332	
Of two tons and up to three tons	16,150	
More than three tons and up to four tons	8,197	
More than four tons and up to five tons	3,670	
More than five tons and up to six tons	2,070	
More than six tons and up to seven tons	1,450	
More than seven tons and up to eight tons	1,241	
More than eight tons and up to nine tons	540	
More than nine tons and up to ten tons	1,109	
More than ten tons and up to eleven tons	1	
More than eleven tons and up to twelve tons	5	
More than twelve tons and up to thirteen tons	1	
More than thirteen tons and up to fourteen tons	3	
More than fourteen tons and up to fifteen tons	14	
		56,783

Gross Weights—Solid Tires

Less than two tons	28	
Of two tons and up to three tons	38	
More than three tons and up to four tons	21	
More than four tons and up to five tons	31	
More than five tons and up to six tons	35	
More than six tons and up to seven tons	44	
More than seven tons and up to eight tons	103	
More than eight tons and up to nine tons	33	
More than nine tons and up to ten tons	25	
More than ten tons and up to eleven tons	1	
More than eleven tons and up to twelve tons	5	
		364
Municipal	1,930	
Ontario Government Dominion Government	683	
		2,613
		59,760

CONVERTIBLE CARS REGISTERED

Convertible Vehicles		2,909
Less than two tons	2,897	
Of two tons and up to three tons	4	
Ontario Government Dominion Government	8	
		2,909

TRAILERS REGISTERED

Counties		Cities		Total
Algoma	52	Sault Ste. Marie	134	186
Brant	177	Brantford	159	336
Bruce	277		....	277
Carleton	233	Ottawa	310	543
Dufferin	92		....	92
Dundas	65		....	65
Durham	149		....	149
Elgin	289	St. Thomas	120	409
Essex	637	Windsor	290	927
Frontenac	74	Kingston	109	183
Glengarry	30		....	30
Grenville	54		....	54
Grey	184	Owen Sound	37	221
Haldimand	192		....	192
Haliburton	5		....	5
Halton	158		....	158
Hastings	232	Belleville	98	330
Huron	405		....	405
Kenora	46		....	46
Kent	406	Chatham	145	551
Lambton	403	Sarnia	109	512
Lanark	160		....	160
Leeds	154		....	154
Lennox and Addington	111		....	111
Lincoln	134	St. Catharines	136	270
Manitoulin	5		....	5
Middlesex	477	London	386	863
Muskoka	81		....	81
Nipissing	49	North Bay	49	98
Norfolk	333		....	333
Northumberland	165		....	165
Ontario	209	Oshawa	146	355
Oxford	352	Woodstock	52	404
Parry Sound	41		....	41
Peel	177		....	177
Perth	263	Stratford	106	369
Peterborough	90	Peterborough	119	209
Prescott	42		....	42
Prince Edward	120		....	120
Rainy River	83		....	83
Renfrew	167		....	167
Russell	45		....	45
Simcoe	354		....	354
Stormont	105		....	105
Sudbury	6	Sudbury	27	33
Thunder Bay	24	Fort William Port Arthur	65 32	121
Temiskaming	124		....	124
Victoria	155		....	155
Waterloo	306	Galt Kitchener	46 155	507
Welland	275	Niagara Falls Welland	97 34	406
Wellington	207	Guelph	60	267
Wentworth	198	Hamilton	667	865
York	603	Toronto	2,747	3,350
Foreign	101		....	101
	9,876		6,435	16,311

Trailer Gross Weights

One ton or less	13,811
More than one ton and up to two tons	614
More than two tons and up to three tons	233
More than three tons and up to four tons	208
More than four tons and up to five tons	329
More than five tons and up to six tons	207
More than six tons and up to seven tons	159
More than seven tons and up to eight tons	336

Trailer Gross Weights—*Continued*

More than eight tons and up to nine tons	12
More than nine tons and up to ten tons	38
More than ten tons and up to eleven tons	....
More than eleven tons and up to twelve tons	....
More than twelve tons and up to thirteen tons	....
More than thirteen tons and up to fourteen tons	....
More than fourteen tons and up to fifteen tons	8
Municipal	297
Free	59
	16,311

AUTOMOBILE DEALERS REGISTERED, 1933

Counties		Cities		Totals
Algoma	2	Sault Ste. Marie	8	10
Brant	3	Brantford	10	13
Bruce	10		....	10
Carleton	10	Ottawa	55	65
Dufferin	3		....	3
Dundas	8		....	8
Durham	7		....	7
Elgin	5	St. Thomas	7	12
Essex	21	Windsor	40	61
Frontenac	1	Kingston	15	16
Glengarry	1		....	1
Grenville	11		....	11
Grey	8	Owen Sound	8	16
Haldimand	11		....	11
Haliburton	....		....	....
Halton	9		....	9
Hastings	13	Belleville	9	22
Huron	11		....	11
Kenora	5		....	5
Kent	6	Chatham	11	17
Lambton	9	Sarnia	6	15
Lanark	13		....	13
Leeds	11		....	11
Lennox and Addington	4		....	4
Lincoln	4	St. Catharines	13	17
Manitoulin	....		....	....
Middlesex	2	London	27	29
Muskoka	7		....	7
Nipissing	9	North Bay	7	16
Norfolk	5		....	5
Northumberland	8		....	8
Ontario	10	Oshawa	18	28
Oxford	11	Woodstock	11	22
Parry Sound	3		....	3
Peel	7		....	7
Perth	10	Stratford	8	18
Peterborough	....	Peterborough	11	11
Prescott	6		....	6
Prince Edward	5		....	5
Rainy River	4		....	4
Renfrew	18		....	18
Russell	7		....	7
Simcoe	26		....	26
Stormont	14		....	14
Sudbury	3	Sudbury	....	3
Thunder Bay	4	Fort William	10	18
		Port Arthur	4	
Temiskaming	27		....	27
Victoria	10		....	10
Waterloo	5	Galt	6	27
		Kitchener	16	
Welland	6	Niagara Falls	4	19
		Welland	9	
Wellington	8	Guelph	11	19
Wentworth	4	Hamilton	45	49
York	32	Toronto	191	223
Foreign	....		....	....
	437		560	997

COMMERCIAL DEALERS REGISTERED, 1933

Counties		Cities		Total
Algoma	....	Sault Ste. Marie	....	....
Brant	....	Brantford	1	1
Bruce	....		....	....
Carleton	....	Ottawa	1	1
Dufferin	....		....	....
Dundas	....		....	....
Durham	....		....	....
Elgin	....	St. Thomas	....	....
Essex	1	Windsor	3	4
Frontenac	....	Kingston	....	....
Glengarry	....		....	....
Grenville	....		....	....
Grey	....	Owen Sound	....	....
Haldimand	....		....	....
Haliburton	....		....	....
Halton	....		....	....
Hastings	....	Belleville	....	....
Huron	....		....	....
Kenora	....		....	....
Kent	....	Chatham	1	1
Lambton	....	Sarnia	....	....
Lanark	....		....	....
Leeds	....		....	....
Lennox and Addington	....		....	....
Lincoln	....	St. Catharines	2	2
Manitoulin	....		....	....
Middlesex	....	London	5	5
Muskoka	....		....	....
Nipissing	....	North Bay	1	1
Norfolk	....		....	....
Northumberland	....		....	....
Ontario	....	Oshawa	1	1
Oxford	1	Woodstock		1
Parry Sound	....		....	....
Peel	....		....	....
Perth	....	Stratford	....	....
Peterborough	....	Peterborough	....	....
Prescott	....		....	....
Prince Edward	....		....	....
Rainy River	....		....	....
Renfrew	....		....	....
Russell	....		....	....
Simcoe	....		....	....
Stormont	....		....	....
Sudbury	....	Sudbury	....	....
Thunder Bay	....	Fort William Port Arthur	....	..
Temiskaming	....		....	....
Victoria	....		....	....
Waterloo	....	Galt Kitchener	2	2
Welland	1	Niagara Falls Welland	....	1
Wellington	....	Guelph	....	....
Wentworth	....	Hamilton	13	13
York	1	Toronto	27	28
Foreign	....		....	....
	4		57	61

MOTORCYCLES REGISTERED, 1933

Counties		Cities		Total
Algoma	17	Sault Ste. Marie	15	32
Brant	20	Brantford	18	38
Bruce	17		....	17
Carleton	48	Ottawa	226	274
Dufferin	14		....	14
Dundas	19		....	19
Durham	29		....	29
Elgin	18	St. Thomas	25	43
Essex	42	Windsor	58	100
Frontenac	5	Kingston	57	62
Glengarry	8		....	8
Grenville	11		....	11
Grey	23	Owen Sound	2	25
Haldimand	22		....	22
Haliburton	4		....	4
Halton	44		....	44
Hastings	24	Belleville	31	55
Huron	48		....	48
Kenora	9		....	9
Kent	29	Chatham	8	37
Lambton	25	Sarnia	29	54
Lanark	29		....	29
Leeds	24		....	24
Lennox and Addington	14		...	14
Lincoln	36	St. Catharines	38	74
Manitoulin	4		....	4
Middlesex	26	London	145	171
Muskoka	18		....	18
Nipissing	17	North Bay	10	27
Norfolk	45		....	45
Northumberland	24		....	24
Ontario	41	Oshawa	52	93
Oxford	56	Woodstock	26	82
Parry Sound	8		....	8
Peel	49		....	49
Perth	37	Stratford	24	61
Peterborough	6	Peterborough	28	34
Prescott	10		....	10
Prince Edward	18		....	18
Rainy River	2		....	2
Renfrew	30		....	30
Russell	6		....	6
Simcoe	62		....	62
Stormont	45		....	45
Sudbury	2	Sudbury	14	16
Thunder Bay	7	Fort William	20	34
		Port Arthur	7	
Temiskaming	84		....	84
Victoria	15		....	15
Waterloo	53	Galt	17	151
		Kitchener	81	
Welland	76	Niagara Falls	23	124
		Welland	25	
Wellington	21	Guelph	22	43
Wentworth	55	Hamilton	141	196
York	252	Toronto	1,578	1,830
Foreign	2		....	2
	1,650		2,720	4,370

MOTOR VEHICLES BRANCH

Highways Department

Revenue for the Fiscal Year 1932-1933

	Gross	Deductions	Net
Passenger car permits	$4,364,899 00	$91,389 90	$4,273,509 10
Commercial permits	1,941,212 00	12,172 65	1,929,039 35
Automobile dealer permits	19,906 00		19,906 00
Commercial dealer permits	4,934 00		4,934 00
Motorcycle dealer permits	114 00		114 00
Trailer permits	133,055 50	2,135 80	130,919 70
Two-purpose permits	28,560 00	685 70	27,874 30
Chauffeurs	181,285 00	12,135 80	169,149 20
Operators	501,122 50	43,812 00	457,310 50
Motorcycle permits	12,251 50	294 70	11,956 80
Transfers	109,289 00	3,168 90	106,120 10
Duplicate cards	6,373 50	9 50	6,364 00
In transits	5,308 50	492 35	4,816 15
Certificates and searches	173 60		173 60
Fines	71,045 70	182 00	70,863 70
Lists	199 06		199 06
Public vehicles	104,043 66		104,043 66
Public Commercial Vehicles	91,033 64	19 00	91,014 64
Testing headlights	80 00	15 00	65 00
Examination fees	13,824 00		13,824 00
Miscellaneous	36 52		36 52
	$7,588,746 68	$166,513 30	$7,421,159 84
Less charges paid by agents		1,073 54	
Total	$7,588,746 68	$167,586 84	$7,421,159 84

MOTOR VEHICLES BRANCH

Highways Department

Revenue for Fiscal Year 1932-1933

Passenger car permits	$4,364,899 00		
Commercial permits	1,941,212 00		
Automobile dealer permits	19,906 00		
Commercial dealer permits	4,934 00		
Motorcycle dealer permits	114 00		
Trailer permits	133,055 50		
Two-purpose permits	28,560 00		
Chauffeurs	181,285 00		
Operators	501,122 50		
Motorcycle permits	12,251 50		
Transfers	109,289 00		
Duplicate cards	6,373 50		
In transits	5,308 50		
Certificates and searches	173 60		
Fines	71,045 70		
Lists	199 06		
Public vehicles	104,043 66		
Public commercial vehicles	91,033 64		
Postage	32 52		
Testing headlights	80 00		
Examination fees	13,824 00		
Miscellaneous	4 00		
		$7,588,746 68	
LESS:			
Commissions deducted by agents	$164,346 80		
Express charges paid by agents	61 07		
Rent for typewriters	980 00		
Cheques charged back by Provincial Treasurer	49 53		
Refunds deducted by Provincial Treasurer	2,166 50		
Due from agents, 1933	9 50		
		167,613 40	
			$7,421,133 28
Bank interest			26 56
			$7,421,159 84

ITEMIZED STATEMENT OF RECEIPTS FOR FISCAL YEAR 1932-1933

PASSENGER CARS—1932 FEES

3 at $ 7.00 (4-cylinder)	$ 21 00	
740 at 3.50 (half fee)	2,590 00	
17 at 12.00 (6-cylinder)	204 00	
742 at 6.00 (half fee)	4,452 00	
8 at 20.00 (8-cylinder)	160 00	
161 at 10.00 (half fee)	1,610 00	
1933 FEES		
216,929 at $ 7.00	1,518,503 00	
7,293 at 3.50	25,525 50	
180,959 at 12.00	2,171,508 00	
5,182 at 6.00	31,092 00	
15,777 at 15.00	236,655 00	
530 at 7.50	3,975 00	
18,364 at 15.00	275,460 00	
1,088 at 7.50	8,160 00	
3,796 at 20.00	75,920 00	
91 at 10.00	910 00	
116 at 30.00	3,480 00	
10 at 15.00	150 00	
31 at 40.00	1,240 00	
7 at 20.00, electric	140 00	
17 at 20.00, steam	340 00	
2 at 10.00, steam	20 00	
1,312 at 2.00, new sets	2,624 00	
16 new sets. No fee.		
811 free.		
(454,002) Balance of fees	159 50	
		$4,364,899 00

COMMERCIALS—1932 FEES

Pneumatic Tires

244 at $ 5.00 (half fee)	$1,220 00
79 at 12.00 (half fee)	948 00
138 at 6.00 (quarter fee)	828 00
27 at 18.00 (half fee)	486 00
68 at 9.00 (quarter fee)	612 00
10 at 27.50 (half fee)	275 00
32 at 13.75 (quarter fee)	440 00
4 at 36.00 (half fee)	144 00
18 at 18.00 (quarter fee)	324 00
4 at 42.00 (half fee)	168 00
6 at 21.00 (quarter fee)	126 00
6 at 48.00 (half fee)	288 00
9 at 24.00 (quarter fee)	216 00
1 at 58.50 (half fee)	58 50
4 at 29.25 (quarter fee)	117 00
2 at 130.00 (full fee)	260 00
7 at 32.50 (quarter fee)	227 50

Solid Tires

1 at $16.50 (half fee)	$16 50
1 at 12.00 (quarter fee)	12 00
3 at 17.50 (quarter fee)	52 50
1 at 45.00 (half fee)	45 00
2 at 22.50 (quarter fee)	45 00
1 at 52.50 (half fee)	52 50
3 at 30.00 (quarter fee)	90 00
1 at 40.00 (quarter fee)	40 00

1933 FEES

Pneumatic Tires

20,654 at $10.00	$206,540 00
1,429 at 5.00 (half fee)	7,145 00
14,773 at 24.00	354,552 00
1,123 at 12.00 (half fee)	13,476 00
7,704 at 48.00	369,792 00
364 at 24.00 (half fee)	8,736 00
3,376 at 65.00	219,440 00
180 at 32.50 (half fee)	5,850 00
1,765 at 84.00	148,260 00
145 at 42.00 (half fee)	6,090 00
1,237 at 98.00	121,226 00
77 at 49.00 (half fee)	3,773 00
1,070 at 112.00	119,840 00
65 at 56.00 (half fee)	3,640 00
444 at 144.00	63,936 00
32 at 72.00 (half fee)	2,304 00
897 at 170.00	152,490 00
50 at 85.00 (half fee)	4,250 00
1 at 198.00	198 00
5 at 228.00	1,140 00
1 at 260.00	260 00
3 at 294.00	882 00
14 at 330.00	4,620 00

Solid Tires

27 at $16.00	$432 00
1 at 8.00 (half fee)	8 00
33 at 33.00	1,089 00
3 at 16.50 (half fee)	49 50
20 at 60.00	1,200 00
1 at 30.00 (half fee)	30 00
29 at 80.00	2,320 00
33 at 102.00	3,366 00
1 at 51.00 (half fee)	51 00
43 at 119.00	5,117 00
1 at 59.50 (half fee)	59 50
96 at 136.00	13,056 00
7 at 68.00 (half fee)	476 00
26 at 171.00	4,446 00

Solid Tires—*Continued*

5 at 85.50 (half fee)	427 50	
25 at 200.00	5,000 00	
1 at 231.00	231 00	
4 at 264.00	1,056 00	
1 at 132.00 (half fee)	132 00	
1,933 at 2.00, municipal	3,866 00	
814 at 2.00, new sets	1,628 00	
670 free.		
4 new sets. No fee.		
Increase capacity and balance fees	16,551 50	

BUSES

1 at $10.00	10 00	
31 at 24.00	744 00	
31 at 36.00	1,116 00	
1 at 18.00 (half fee)	18 00	
53 at 55.00	2,915 00	
1 at 27.50 (half fee)	27 50	
114 at 72.00	8,208 00	
2 at 36.00 (half fee)	72 00	
114 at 84.00	9,576 00	
1 at 42.00 (half fee)	42 00	
76 at 96.00	7,296 00	
52 at 117.00	6,084 00	
144 at 130.00	18,720 00	
4 at 65.00 (half fee)	260 00	
(60,484)		$1,941,212 00

"M" DEALERS

991 at $20.00	$19,820 00	
6 at 10.00	60 00	
13 at 2.00, new sets	26 00	
(1,010)		19,906 00

"M.T." DEALERS

1 at $20.00	$20 00	
9 at 24.00	216 00	
18 at 48.00	864 00	
1 at 65.00	65 00	
4 at 84.00	336 00	
1 at 98.00	98 00	
1 at 49.00 (half fee)	49 00	
21 at 112.00	2,352 00	
1 at 144.00	144 00	
2 at 170.00	340 00	
1 at 330.00	330 00	
1 at 120.00, trailer	120 00	
(61)		4,934 00

"M.C." DEALERS

(19) 19 at $ 6.00	$114 00	
		114 00

TRAILERS—1932 FEES

322 at $1.50 (half fee)	$483 00	
4 at 4.00 (half fee)	16 00	
1 at 9.00 (half fee)	9 00	
5 at 4.50 (quarter fee)	22 50	
4 at 7.00 (quarter fee)	28 00	
1 at 22.50 (half fee)	22 50	
3 at 11.25 (quarter fee)	33 75	
1 at 15.00 (quarter fee)	15 00	
3 at 17.50 (quarter fee)	52 50	
2 at 20.00 (quarter fee)	40 00	
1 at 24.75 (quarter fee)	24 75	
1 at 27.50 (quarter fee)	27 50	

1933 FEES

11,568 at $3.00	$34,704 00	
2,005 at 1.50 (half fee)	3,007 50	
541 at 10.00	5,410 00	
59 at 5.00 (half fee)	295 00	
208 at 21.00	4,368 00	
19 at 10.50 (half fee)	199 50	
182 at 32.00	5,824 00	
19 at 16.00 (half fee)	304 00	
310 at 50.00	15,500 00	
13 at 25.00 (half fee)	325 00	
191 at 66.00	12,606 00	
10 at 33.00 (half fee)	330 00	
146 at 77.00	11,242 00	
9 at 38.50 (half fee)	346 50	
322 at 88.00	28,336 00	
12 at 44.00 (half fee)	528 00	
10 at 108.00	1,080 00	
1 at 54.00 (half fee)	54 00	
35 at 120.00	4,200 00	
2 at 60.00 (half fee)	120 00	
8 at 210.00	1,680 00	
297 at 2.00, municipal	594 00	
69 at 2.00, new sets	138 00	
58 free.		
(16,442) Increase capacity and balance fees	1,089 50	
		133,055 50

TWO-PURPOSE

2,687 at $10.00	$26,870 00	
197 at 5.00 (half fee)	985 00	
3 at 24.00	72 00	
1 at 12.00 (half fee)	12 00	
157 at 2.00, new sets	314 00	
8 free.		
(3,053) Balance of fees	307 00	
		28,560 00

CHAUFFEURS

12,484 at $2.00, originals	$24,968 00	
4,200 at 1.00, originals	4,200 00	
149,728 at 1.00, renewals	149,728 00	
13 free originals.		
29 free renewals.		
Previous year fees	2,389 00	
(166,454)		181,285 00

OPERATORS

41,540 at $1.00, originals	$41,540 00	
427,672 at 1.00, renewals	427,672 00	
53,545 at .50, instruction	26,772 50	
312 at 1.00, "M.C." operator original	312 00	
597 at 1.00 "M.C." operator renewal	597 00	
1 free renewal.		
Previous year operators' fees	4,216 00	
Previous year's "M.C." operators' fees	13 00	
(523,667)		
		501,122 50

MOTORCYCLES

3,862 at $3.00	$11,586 00	
259 at 1.50 (half fee)	388 50	
131 at 2.00, municipal	262 00	
15 at 1.00, new sets	15 00	
2 new sets. No fee.		
30 free.		
(4,299)		12,251 50

TRANSFERS

50,330 at	$2.00, passenger	100,660 00	
3,773 at	2.00, commercial	7,546 00	
569 at	1.00, motorcycles	569 00	
140 at	2.00, two-purpose	280 00	
111 at	2.00, trailers	222 00	
6 at	2.00, "M" dealers	12 00	
(54,929)			109,289 00

DUPLICATE CARDS

2,371 at	$ .50, passenger cars	1,185 50	
316 at	.50, commercials	158 00	
51 at	.50, motorcycles	25 50	
9 at	.50, trailers	4 50	
11 at	.50, two-purpose	5 50	
450 at	.50, passenger transfer	225 00	
42 at	.50, commercial transfer	21 00	
3 at	.50, "M" dealer	1 50	
185 at	.50, chauffeurs' originals	92 50	
1,461 at	.50, chauffeurs' renewals	730 50	
278 at	.50, operators' originals	139 00	
2,201 at	.50, operators' renewals	1,100 50	
4 at	.50, "M.C." operators' originals	2 00	
3 at	.50, "M.C." operators' renewals	1 50	
(7,385)			
93 at	.50 (1931)	46 50	
5,269 at	.50 (1932)	2,634 50	
			6,373 50

IN TRANSITS

10,617 at	$ .50	$5,308 50	
			5,308 50

SEARCHES AND CERTIFICATES

85 at	$ .25	$21 25	
1 at	.30	30	
1 at	.39	39	
1 at	.48	48	
97 at	.50	48 50	
1 at	.65	65	
34 at	.75	25 50	
2 at	.90	1 80	
19 at	1.00	19 00	
1 at	1.23	1 23	
8 at	1.25	10 00	
6 at	1.50	9 00	
3 at	1.75	5 25	
3 at	2.00	6 00	
1 at	2.25	2 25	
1 at	2.50	2 50	
1 at	3.25	3 25	
1 at	16.25	16 25	
(266)			173 60

Miscellaneous	4 00
Fines	71,045 70
Lists	199 06
Public Vehicles	104,043 66
Public commercial vehicles	91,033 64
Postage	32 52
Testing headlights	80 00
Examination fees	13,824 00
Commissions paid to agents	164,346 80
Cartage and express charges paid by agents	61 07
Rent for typewriters	980 00

SEARCHES AND CERTIFICATES—*Continued*

Refunds		$2,166 50
Balances due by agents		9 50
Cheques charged back:		
R. H. England	$ 1 03	
Postal note	50	
E. Kitchener	12 00	
C. Bresett	36 00	
		49 53
Deposited with Treasury as shown by Treasurer's Statement		7,421,159 84
		$7,588,773 24
Bank interest		26 56
		$7,588,746 68

REPORT OF THE FINANCIAL RESPONSIBILITY DIVISION, MOTOR VEHICLES BRANCH, DEPARTMENT OF HIGHWAYS, ONTARIO, 1933

During the year 1933 the financial responsibility provisions of The Highway Traffic Act continued to operate to eliminate from the highways of the Province those reckless, dangerous or irresponsible drivers who, both directly and indirectly, are the cause of a very large percentage of the accidents which each year take such a fearful toll of lives and suffering on our streets and roads. The first two years of operation disclosed the cumulative nature of the results being achieved. At the end of 1931 there were 2,811 suspensions in force, by the close of 1932 this total had mounted to 3,635, and at the end of last year there were 5,682 suspensions in effect.

While the elimination of the irresponsible driver is important, the financial responsibility provisions also accomplish another and perhaps equally important end. That is, they serve as a warning and educational force for an equally large number of drivers who, while able to prove their financial responsibility and regain their driving and ownership privileges, are nevertheless made acutely aware of the fact that the law will not tolerate reckless or dangerous driving, and that further accidents or convictions may induce the insurance company to refuse to continue to carry the risk and thus bring about permanent suspension of these drivers' licenses. Realizing, therefore, that another offence may result in such a manner, most of these drivers take steps to correct their driving habits and eliminate dangerous inclinations, to the greater safety of all users of the roads.

One of the primary objects of this legislation was to ensure compensation for the victims of motor vehicle accidents. It appears that in this it has been remarkably successful. During the period this law has been in operation the Motor Vehicles Branch has received reports of 29,822 accidents. During this same period, however, suspensions have been imposed for failure to satisfy judgments in only 204 cases, and 42 of these have subsequently arranged settlement of the claims against them. In other words, it appears that in only 166 cases were the victims unable to secure compensation for injuries or damage sustained in these 29,822 accidents. Or it may be said that approximately 99.5% of all accident claims have been settled by those at fault.

The following table shows the details of suspensions imposed and relieved during the year 1933, and during the period from September 1st, 1930, to December 31st, 1933:

Cause	1933 Suspensions	1933 Lifted	Sept. 1st, 1930, to Dec. 31st, 1933 Suspensions	Sept. 1st, 1930, to Dec. 31st, 1933 Lifted	Remaining in force at Dec. 31, 1933
Reckless driving	1,064	669	2,971	1,877	1,094
Speeding	37	29	77	56	21
Racing	1	2	9	9	..
Driving without license	1,306	509	3,754	1,296	2,458
Criminal negligence	36	13	108	43	65
Other offences	69	19	246	54	192
Judgments	90	26	204	42	162
Policy cancellations	976	518	1,664	1,026	638
Failure to return to scene of accident	182	125	532	351	181
Driving while intoxicated	345	149	1,409	538	871
Totals	4,106	2,059	10,974	5,292	5,682

REPORT OF THE ACCIDENT REPORTING DIVISION, MOTOR VEHICLES BRANCH, DEPARTMENT OF HIGHWAYS, ONTARIO, 1933

FOREWORD

Contrary to the experience in many parts of the United States, the Ontario motor vehicle accident record for 1933 showed a sharp downward trend throughout the entire year. During the first half of the year this was in conformity with the continent-wide experience, but inasmuch as many other jurisdictions showed increases in the latter half, sufficient generally to offset the gains of the previous six months, it must be assumed that Ontario's progress was based on a sounder foundation. In the United States the trend was stated to be very close to the business trend, but this was not true in Ontario. Here, during 1932, fatalities dropped approximately 12 per cent from the 1931 total, and during 1933 a further decrease of approximately 20 per cent was recorded. During the same period, however, motor vehicle registrations and drivers' licenses decreased in number by only a little more than five per cent. Under the circumstances, it appears that the excess reduction in this Province must have been due to the success of the educational campaigns conducted during the year by this Branch.

The accompanying tables which show in some detail the 1933 experience in Ontario, are issued in continuation of previous reports covering the years 1932 and 1931. As in other years, the object in presenting these statistics is to give a detailed analysis of the principal circumstances under which the misadventures occur and to present a mathematical picture of the motor vehicle accident situation as it existed in the year 1933. Little effort has been made to compare the data with those of previous years because it is felt that the number of reports is not sufficiently large to eliminate the part played by chance in many instances. However, the data as collected since September, 1930, do give a full picture with figures of sufficient magnitude to permit accurate analysis. The study of these combined statistics is not contained in this report, which properly relates only to the one year, but some consideration has been given to these larger totals in an interim report previously issued and further study is being given to other phases.

The provisions of The Highway Traffic Act requiring that all accidents resulting in the death or injury of any person, or in property damage of more than fifty dollars, be reported, were enacted with three principal objects in view. The first was that the Department might have an adequate picture of the problem and have available data regarding the various hazards to be overcome. The second was that authentic knowledge of the records of individual drivers might be obtained, and finally to supply statistics or at least a statistical background for safety educational work and for safety propaganda.

To a large degree all of these objectives are being achieved. We know now the magnitude of the motor vehicle accident problem, and we know when progress is being made in combatting it. We have records of well over 130,000 drivers, some forty thousand of whom have been involved in accidents, some in more than one, a few in three or four or five. We have also had available, from year to year, statistics which served as the basis on which newspaper publicity, radio addresses, and various bulletins were prepared. In all, approximately 100,000 words were written on this subject during each of the last two years, and it is impossible to tell how many individuals were influenced by the information disseminated. That some were influenced is apparent, as mentioned before, from the progress made in reducing the number of fatalities.

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TABLE No. 1—MOTOR VEHICLE ACCIDENTS RESULTING IN DEATHS, IN INJURIES AND IN PROPERTY DAMAGE ONLY, BY TYPES

Motor Vehicle Collision with	Number of Accidents	Per cent of Total	Number of Fatal Accidents	Per cent of Total	Number of Personal Injury Accidents	Per cent of Total	Number of Property Damage Only	Per cent of Total
Pedestrian........	2,697	31.2	170	45.7	2,527	42.35	.....	.....
Other auto.......	3,243	37.6	50	13.5	1,552	26.01	1,641	71.43
Horse-drawn......	193	2.2	7	1.9	130	2.18	56	2.44
Railroad train.....	91	1.1	25	6.7	41	.69	25	1.09
Street car........	176	2.0	5	1.3	84	1.41	87	3.79
Other vehicles.....	9	.1	1	.3	4	.07	4	.18
Fixed object......	653	7.6	22	5.9	385	6.46	246	10.71
Bicycle...........	660	7.7	25	6.7	634	10.63	1	.04
Motorcycle.......	177	2.0	5	1.3	161	2.70	11	.48
Non-collision......	648	7.5	59	15.9	425	7.13	164	7.14
Miscellaneous.....	87	1.0	3	.8	22	.37	62	2.70
Totals.......	8,634	100.0	372	100.0	5,965	100.00	2,297	100.00

Of the eleven classifications of accident types, collisions between motor vehicles with 37.6 per cent, and collision with pedestrians, with 31.2 per cent of the total, together accounted for more than two of every three accidents reported during 1933. Collisions with fixed objects, with bicycles, and non-collision accidents, with an approximately equal number reported of each type, comprised a further 23 per cent.

While collisions between motor vehicles were the most numerous they were the least serious in result as regards personal injury—about half of the total resulting in property damage only. Seventy-one per cent of the accidents resulting in damage only of fifty dollars or more, were of this type.

On the other hand, the motor vehicle vs. pedestrian type, which accounted for 31.2 per cent of all accidents, resulted in 45.7 per cent of the fatal accidents and 42.3 per cent of the accidents causing non-fatal injuries. The "non-collision" class of accidents resulted in 15.9 per cent of the fatal accidents, although only 7.5 per cent of all mishaps were of this type.

TABLE No. 2—NUMBER OF MOTOR VEHICLE ACCIDENT FATALITIES, BY TYPE OF ACCIDENT AND BY AGE GROUPS

Motor Vehicle Collision with	All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Pedestrian	170	42.2	24	80.0	35	71.4	21	15.3	26	37.7	17	40.5	47	61.9
Other auto	56	13.9	....	....	5	10.2	21	15.3	11	15.9	9	21.4	10	13.2
Horse-drawn	7	1.7	....	....	....	....	3	2.2	2	2.9	....	....	2	2.6
Railroad train	42	10.4	1	3.3	....	....	31	22.6	5	7.2	3	7.1	2	2.6
Street car	5	1.3	....	....	....	....	3	2.2	1	1.5	1	2.4	....	....
Other vehicles	1	.2	....	....	....	....	....	....	....	....	....	....	1	1.3
Fixed object	24	6.0	1	3.3	....	....	10	7.3	6	8.7	5	11.9	2	2.6
Bicycle	25	6.2	....	....	6	12.3	10	7.3	4	5.8	3	7.1	2	2.6
Motorcycle	5	1.3	....	....	....	....	5	3.7	....	....	....	....	....	....
Non-collision	65	16.1	3	10.1	3	6.1	33	24.1	13	18.8	4	9.6	9	11.9
Miscellaneous	3	.7	1	3.3	....	....	....	....	1	1.5	....	....	1	1.3
Totals	403	100.0	30	100.0	49	100.0	137	100.0	69	100.0	42	100.0	76	100.0

NUMBER OF MOTOR VEHICLE ACCIDENT FATALITIES, BY AGE GROUPS OF VICTIMS

All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over	
No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
403	100.0	30	7.4	49	12.2	137	34.0	69	17.1	42	10.4	76	18.9

Seventy-nine, or 19.6 per cent of the 403 victims killed in motor vehicle accidents in 1933 were children under 15, and the remaining 324 were adults. Compared with 1932, the number of deaths in the age group "0 to 4" was unchanged. The experience of children between 5 and 14 years showed improvement—the total of 49 being 16 less than last year. The decrease in all deaths was from 502 to 403, or 19.7 per cent; while child and adult fatalities were 16.8 and 20.4 per cent, respectively, less than in 1932.

One hundred and seventy persons died from injuries suffered in the "collision with pedestrian" type of accident. There was a reduction of 20.3 per cent and 28.8 per cent, respectively, in the number of juveniles and adults fatally injured in this type of accident.

TABLE No. 3—HOUR OF OCCURRENCE

Hour	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
12– 1 A.M.	253	2.9	19	5.1	128	2.1	106	4.6
1– 2 "	141	1.6	7	1.9	77	1.3	57	2.5
2– 3 "	121	1.4	7	1.9	58	1.0	56	2.4
3– 4 "	104	1.2	3	.8	65	1.1	36	1.6
4– 5 "	71	.8	1	.3	46	.8	24	1.1
5– 6 "	61	.7	2	.6	36	.6	23	1.0
6– 7 "	85	1.0	5	1.3	48	.8	32	1.4
7– 8 "	126	1.5	2	.6	86	1.4	38	1.7
8– 9 "	229	2.7	7	1.9	157	2.6	65	2.8
9–10 "	253	2.9	7	1.9	184	3.1	62	2.7
10–11 "	345	4.0	21	5.6	225	3.8	99	4.3
11–12 "	441	5.1	16	4.3	303	5.1	122	5.3
12– 1 P.M.	442	5.1	14	3.8	329	5.5	99	4.3
1– 2 "	391	4.5	21	5.6	276	4.6	94	4.1
2– 3 "	412	4.8	19	5.1	269	4.5	124	5.4
3– 4 "	530	6.2	12	3.2	384	6.4	134	5.8
4– 5 "	640	7.4	21	5.6	455	7.6	164	7.1
5– 6 "	797	9.2	29	7.8	590	9.9	178	7.8
6– 7 "	680	7.9	36	9.7	489	8.2	155	6.8
7– 8 "	648	7.5	32	8.6	469	7.9	147	6.4
8– 9 "	603	7.0	34	9.1	440	7.4	129	5.6
9–10 "	448	5.2	19	5.1	332	5.6	97	4.2
10–11 "	388	4.5	18	4.8	246	4.1	124	5.4
11–12 "	382	4.4	19	5.1	243	4.1	120	5.2
Not stated	43	.5	1	.3	30	.5	12	.5
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.0

As might be expected, the number of accidents at the different hours of the day showed a tendency to follow fluctuations in the volume of vehicles, pedestrians and other traffic, and the peaks can be seen to correspond fairly closely to the hours when most people are going to or from work, school, meals or evening's recreation.

It will also be observed that, while the number of accidents which took place during the seven-hour period from 6 p.m. to 1 a.m. comprised 39.4 per cent of the total, 47.5 per cent of the fatal mishaps occurred during these hours. Unfavourable light conditions may be said to be largely responsible for this higher fatal rate.

TABLE No. 4—DAY OF OCCURRENCE

Day	Number of Accidents							
	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Sunday*	1,214	14.1	58	15.6	805	13.5	351	15.3
Monday	1,202	13.9	53	14.2	817	13.7	332	14.4
Tuesday	1,161	13.4	48	12.9	810	13.6	303	13.2
Wednesday	1,089	12.6	35	9.4	790	13.2	264	11.5
Thursday	1,094	12.7	41	11.0	752	12.6	301	13.1
Friday	1,249	14.5	52	14.0	871	14.6	326	14.2
Saturday	1,625	18.8	85	22.9	1,120	18.8	420	18.3
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.0

It will be observed that Saturday had by far the worst daily average, viz., 31 accidents reported, as compared with 22 for all other days of the week.

There was, on an average, one fatal accident for every 23 hours during 1933, as compared with one every 19 hours in the previous year.

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*During 1933, there was one more Sunday (53) than other days of the week.

TABLE No. 5—ALL ACCIDENTS, FATALITIES, PERSONS INJURED AND AMOUNT OF PROPERTY DAMAGE, BY MONTHS

Month	Accidents		Fatalities		Persons Injured		Property Damage	
	No.	Per cent	No.	Per cent	No.	Per cent	Amount	Per cent
January	570	6.6	14	3.5	481	6.1	$59,201	7.1
February	509	5.9	20	5.0	407	5.2	52,412	6.3
March	551	6.4	21	5.2	444	5.6	49,605	5.9
April	570	6.6	25	6.2	546	6.9	45,624	5.5
May	638	7.4	39	9.7	588	7.5	53,153	6.4
June	749	8.7	30	7.4	739	9.4	67,111	8.0
July	878	10.1	53	13.1	873	11.1	86,095	10.3
August	920	10.6	45	11.2	892	11.3	100,697	12.1
September	801	9.3	40	9.9	791	10.0	79,036	9.5
October	939	10.9	43	10.7	851	10.8	93,579	11.2
November	758	8.8	36	8.9	655	8.3	72,716	8.7
December	751	8.7	37	9.2	610	7.8	75,213	9.0
Totals	8,634	100.0	403	100.0	7,877	100.0	$834,442	100.0

It will be noticed from the above table that the number and seriousness of accidents showed a decidedly upward trend during the third and fourth quarters of the year. Heavy traffic, and unfavourable light, weather and road surface conditions are, respectively, the most obvious factors contributing to these results.

For comparative purposes, the monthly percentage distribution of urban and rural accidents is shown below:

	Urban	Rural
January	6.9	6.1
February	6.4	5.1
March	7.0	5.4
April	8.1	4.3
May	8.0	6.5
June	8.2	9.4
July	8.7	12.4
August	9.3	12.7
September	8.8	10.1
October	10.0	12.2
November	8.8	8.8
December	9.8	7.0
Totals	100.0	100.0

Accidents were most frequent on urban streets during the last quarter of the year; and on rural roads in the third quarter.

TABLE No. 6—LIGHT CONDITION PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Daylight	4,992	57.8	193	51.9	3,563	59.73	1,236	53.8
Dusk	489	5.7	25	6.7	345	5.78	119	5.2
Dark	3,143	36.4	154	41.4	2,053	34.42	936	40.7
Not stated	10	.1	....	......	4	.07	6	.3
Totals	8,634	100.0	372	100.0	5,965	100.00	2,297	100.0

That darkness, or inadequate illumination, is an important contributory cause of motor vehicle accidents is vividly indicated by the above figures. Despite the fact that the volume of traffic, both vehicular and pedestrian, is undoubtedly less throughout the year during dusk or darkness than in daylight, night accidents accounted for more than two of every five reported mishaps, and almost half of the fatal accidents which occurred during 1933.

Fifteen hundred and sixty-three (1,563) or 43 per cent of the 3,632 accidents recorded as occurring during dusk or dark, took place on the rural roads. For fatal accidents on these roads and under these conditions of light, the percentage was 57; however, when it is considered that inadequate illumination is also a factor which contributes to urban accidents, this proportion does not show completely the relative hazard.

All city accidents were 5.6 per cent greater in the four winter months (January, October, November, December); whereas all city accidents between 5 and 8 p.m. were 32.7 per cent greater.

These data become even more significant when it is learned that the amount of gasoline consumed by motor vehicles during the four winter months of 1933, was 11.1 per cent less than during the four summer months (May, June, July and August).

TABLE No. 7—ROAD SURFACE PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Dry surface	5,928	68.7	275	73.9	4,281	71.7	1,372	59 73
Wet surface	1,317	15.2	54	14.5	882	14.8	381	16.59
Muddy surface	10	.1	1	.3	7	.1	2	.09
Snowy surface	438	5.1	9	2.4	267	4.5	162	7.05
Icy surface	941	10.9	33	8.9	528	8.9	380	16.54
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.00

Table No. 7 gives particulars of accident experience under various conditions of the road surface.

It will be noticed that the share of fatal accidents which occurred on dry surfaces, exceeded the proportion of all accidents under similar conditions. On the other hand, an increase in the proportion of less serious (property damage only) accidents was found.

The probable explanation is that, under unusual conditions, drivers operate at lower speeds. and also that fewer pedestrians and bicyclists, who are more apt to suffer serious injury than are occupants of motor vehicles, are participating in traffic.

TABLE No. 8—WEATHER CONDITIONS PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Clear	6,233	72.2	289	77.7	4,426	74.2	1,518	66.1
Cloudy	962	11.2	34	9.1	643	10.8	285	12.4
Fog	159	1.8	9	2.4	96	1.6	54	2.3
Rain	797	9.2	29	7.8	514	8.6	254	11.1
Snow or Sleet	483	5.6	11	3.0	286	4.8	186	8.1
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.0

The figures above show that accidents tend to be less severe from the standpoint of fatal and non-fatal injuries during obviously unfavourable weather conditions.

TABLE No. 9—ROAD CONDITION PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
In good condition.....	8,576	99.32	368	98.9	5,922	99.28	2,286	99.5
Defect in roadway.....	35	.41	4	1.1	24	.40	7	.3
Road under repair.....	19	.22	....	.....	15	.25	4	.2
Obstruction not lighted.	4	.05	....	.....	4	.07	....	.....
Totals...........	8,634	100.0	372	100.0	5,965	100.00	2,297	100.0

From the above table it can be seen that road defects were a very minor contributory cause of accidents, since more than 99 per cent of the mishaps in 1933 occurred on roads stated to be in good condition.

TABLE No. 10—ACTIONS OF PEDESTRIANS

	All Accidents		Accidents Involving Pedestrians			
			Fatal		Non-fatal	
	No.	Per cent	No.	Per cent	No.	Per cent
Crossing at street intersections:						
(a) with signal	45	1.7	1	.6	44	1.7
(b) against signal	88	3.3	3	1.8	85	3.4
(c) no signal	322	11.9	10	5.9	312	12.4
(d) diagonally	45	1.7	5	2.9	40	1.6
Crossing between intersections	387	14.4	29	17.1	358	14.2
Waiting for or getting on or off street car	72	2.7	2	1.2	70	2.8
Standing in safety zone	6	.2	....	.....	6	.2
Getting on or off other vehicle	27	1.0	1	.6	26	1.0
Children playing in street	1,107	41.0	41	24.1	1,066	42.2
At work in roadway	66	2.4	8	4.7	58	2.3
Riding or hitching on vehicle	51	1.9	11	6.5	40	1.6
Walking on highway	131	4.9	30	17.6	101	4.0
Coming from behind parked vehicle or object	227	8.4	14	8.2	213	8.4
Crossing highway	66	2.4	15	8.8	51	2.0
On sidewalk	57	2.1	....	.....	57	2.2
Totals	2,697	100.0	170	100.0	2,527	100.0

The fact that pedestrians made up over 43 per cent of the total fatalities from motor vehicle accidents during 1933 should be sufficient warning of the hazards faced by the man on foot. The above table shows the increased dangers of improper use of the streets and highways—the greater possibility of fatal injuries in accidents involving pedestrians who cross *between* rather than *at* intersections, who cross against traffic signals, hitch on vehicles, or walk on rural highways. Incidentally, about two of every three persons killed or injured while walking along rural highways were walking with their backs to traffic.

On the other hand, the drivers of motor vehicles must be held responsible for most ofthe accidents at non-signalized intersections, and also of many of those involving children playing on the street. More than two of every five pedestrian accidents in 1933 resulted from this latter action, and, while we cannot hope to prevent them all, the number can be reduced if parents, teachers and drivers will accept a larger share of the responsibility now placed on younger pedestrians.

TABLE No. 11—NUMBER OF ACCIDENTS, BY LOCATION

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Cities	4,757	55.1	105	28.2	3,613	60.6	1,039	45.3
Towns	374	4.3	37	9.9	240	4.0	97	4.2
Villages	87	1.0	8	2.2	56	.9	23	1.0
King's Highways	2,318	26.9	126	33.9	1,326	22.2	866	37.7
County roads	655	7.6	61	16.4	410	6.9	184	8.0
Township roads	443	5.1	35	9.4	320	5.4	88	3.8
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.0

NUMBER OF ACCIDENTS BY URBAN AND RURAL ROADS

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Urban	5,218	60.4	150	40.3	3,909	65.5	1,159	50.5
Rural	3,416	39.6	222	59.7	2,056	34.5	1,138	49.5
Totals	8,634	100.0	372	100.0	5,965	100.0	2,297	100.0

The ratio of reported accidents on urban streets to those on rural roads was about 3 to 2; the proportion of fatal accidents, conversely, was 2 to 3. When it is considered that the traffic, both vehicular and pedestrian, is greater in volume throughout the year on the urban streets, the seriousness of the rural situation becomes more apparent. Among the more important contributory causes may be mentioned: (1) higher speeds; (2) the lack of, and the difficulty of providing, adequate police control; (3) the lack of fixed artificial illumination; (4) level railroad crossings; and (5) the lack of footpaths or sidewalks for pedestrians. Of these factors, the possibility of protecting many grade crossings, of lighting the highways or of providing walks for pedestrians far beyond the limits of settled communities are all probably matters of the remote future. Until such time as the number of physical hazards are reduced, drivers must be brought to a greater understanding of the increased hazards at higher speeds, and pedestrians must appreciate the importance of walking on the left side of the roadway and facing oncoming traffic, so as not always to be at the mercy of drivers.

The amount of property damage from the various locations was as follows:

	Amount of Damage Reported	Amount per Accident	Per cent Dec. from 1932	Per cent Dec. in Number of Accidents
Cities	$258,812	$ 54.40	11.8	5.0
Towns	37,590	100.52	9.7	17.4
Villages	7,775	89.33	15.7	20.2
King's Highways	392,718	169.42	8.7	5.3
County roads	103,759	158.43	7.4	12.4
Township roads	33,788	76.26	25.1	9.4
Totals	$834,442	$ 96.63	10.9	5.9

TABLE No. 12—ACCIDENTS BY ROAD LOCATION

	Number of Accidents							
	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Street intersection	2,856	33.08	58	15.6	2,059	34.51	739	32.17
Between street intersections	2,173	25.16	71	19.1	1,758	29.47	344	14.98
Rural intersection	369	4.27	17	4.6	224	3.76	128	5.57
Straight road	1,903	22.04	138	37.1	1,138	19.07	627	27.29
Private driveway	301	3.49	14	3.8	181	3.04	106	4.62
Curve	511	5.92	25	6.7	312	5.23	174	7.57
Hill	373	4.32	22	5.9	219	3.67	132	5.75
R.R. Crossing:								
(a) Man on duty or gates	5	.06	2	.5	2	.04	1	.04
(b) Automatic signal	18	.21	5	1.4	3	.05	10	.44
(c) Unguarded	79	.92	18	4.8	44	.74	17	.74
Bridge	46	.53	2	.5	25	.42	19	.83
Totals	8,634	100.00	372	100.0	5,965	100.00	2,297	100.00

The greater seriousness of rural accidents is suggested again by the data in the table above—each rural classification showing a greater share of fatal accidents than of all accidents. This fact, however, does not necessarily indicate the relative hazard, since less serious accidents in urban communities were more consistently reported than those which occurred on rural roads, and information of all accidents is therefore somewhat biased toward urban experience. For this reason, the following figures to show the percentage distribution of accidents on the urban and rural roads, by street and road location, will give a more accurate and useful mathematical picture:

	URBAN		RURAL	
	All Accidents	Fatal	All Accidents	Fatal
	Per cent of Total	Per cent of Total	Per cent of Total	Per cent of Total
Street intersection	52.5	38.0	....	....
Between street intersections	40.9	46.7	....	....
Rural intersection	....	....	14.3	8.1
Straight road	....	....	56.9	62.6
Private driveway	2.9	4.0	4.4	3.6
Curve	1.6	2.6	12.4	9.5
Hill	1.0	.7	9.3	9.5
R.R. Crossing	.9	7.3	1.6	6.3
Bridge	.2	.7	1.1	.4
Totals	100.0	100.0	100.0	100.0

It will be noticed that, while more than half of the urban accidents reported during 1933 occurred at street intersections, almost 47 per cent of the fatal mishaps on these streets were classified as "between street intersections". Most accidents at intersections were of the vehicle vs. vehicle type; whereas of those between intersections 62 per cent of the accidents, and 79 per cent of the fatal accidents, involved collisions with pedestrians.

Of the rural mishaps on the "straight road": 40 per cent of all accidents were of the "collision with other motor vehicle" type; and of the fatal accidents at this location, 43 per cent were of the "collision with pedestrian" class.

TABLE No. 13—NUMBER OF ACCIDENTS, DEATHS AND INJURIES, BY CITIES

Cities	Accidents Reported		Fatalities		Injured	
	1932	1933	1932	1933	1932	1933
Belleville	43	40	2	...	34	35
Brantford	66	63	3	1	60	48
Chatham	61	41	1	1	53	45
East Windsor	25	22	...	2	26	18
Fort William	33	41	1	2	27	40
Galt	36	20	1	...	24	18
Guelph	83	83	...	4	59	67
Hamilton	696	691	13	10	575	596
Kingston	45	38	3	2	31	30
Kitchener	51	25	5	1	46	18
London	376	398	4	9	324	332
Niagara Falls	74	66	2	2	64	45
North Bay	11	11	2	2	7	14
Oshawa	48	52	...	1	41	41
Ottawa	342	234	11	14	219	127
Owen Sound	28	21	1	...	25	17
Peterborough	42	50	4	...	27	42
Port Arthur	22	26	...	...	20	29
St. Catharines	81	84	1	3	63	66
St. Thomas	20	16	1	2	15	10
Sarnia	40	57	1	1	32	30
Sault Ste. Marie	10	5	2	1	13	2
Stratford	48	40	2	1	40	31
Sudbury	36	22	...	...	34	24
Toronto	2,434	2,381	68	43	2,107	2,147
Welland	19	7	...	...	12	8
Windsor	206	183	9	3	203	181
Woodstock	33	40	1	1	28	44
Totals	5,009	4,757	138	106	4,209	4,105

TABLE No. 14—NUMBER OF ACCIDENTS, DEATHS AND INJURIES, BY COUNTIES

County or District	Accidents Reported		Fatalities		Injured	
	1932	1933	1932	1933	1932	1933
Algoma	42	25	5	1	34	25
Brant	119	144	7	4	123	127
Bruce	37	28	11	6	42	32
Carleton	399	292	21	21	267	179
Cochrane	17	27	2	4	15	24
Dundas	31	44	4	2	26	41
Dufferin	19	8	3	3	17	9
Durham	79	48	11	8	82	55
Elgin	109	107	3	9	102	102
Essex	448	402	29	27	429	396
Frontenac	77	84	5	9	74	75
Glengarry	20	24	3	2	13	22
Grenville	51	52	7	2	36	58
Grey	72	68	5	2	66	71
Haldimand	36	44	5	3	27	48
Haliburton	1	1	1	1	...	...
Halton	146	141	5	5	139	157
Hastings	169	132	15	3	157	125
Huron	46	33	6	2	39	33
Kenora	14	9	2	...	8	7
Kent	241	180	22	13	251	208
Lambton	71	102	6	4	65	73
Lanark	29	25	4	...	30	21
Leeds	78	98	7	7	72	88
Lennox and Addington	50	59	2	6	58	42
Lincoln	207	161	12	8	209	148
Manitoulin	4	...	...	..	4	...
Middlesex	534	534	22	24	481	465
Muskoka	42	29	...	1	37	23
Nipissing	58	53	4	4	57	62
Norfolk	77	48	8	3	61	61
Northumberland	85	58	3	6	73	51
Ontario	122	142	5	6	99	136
Oxford	157	148	14	10	151	134
Parry Sound	15	14	1	6	18	18
Peel	199	161	11	7	170	142
Perth	96	89	3	7	86	83
Peterborough	74	84	8	3	56	65
Prescott	18	25	1	5	16	10
Prince Edward	28	22	1	3	26	19
Rainy River	22	24	3	1	24	11
Renfrew	23	35	6	6	21	38
Russell	23	21	1	2	21	16
Simcoe	151	136	13	15	177	146
Stormont	42	57	4	1	40	47
Sudbury	78	46	4	3	76	57
Thunder Bay	104	104	8	3	99	99
Temiskaming	28	49	1	3	25	46
Victoria	22	24	1	1	18	35
Waterloo	175	135	15	9	155	113
Welland	244	236	19	17	213	206
Wellington	155	155	9	9	138	137
Wentworth	898	867	28	26	811	790
York	3,089	3,000	106	70	2 697	2,701
Totals	9,171	8,634	502	403	8,231	7,877

TABLE No. 15—SEX OF DRIVERS

Sex	No. of Drivers in Accidents	Per cent of Total	In Fatal		In Personal Injury		In Property Damage Only	
			No.	Per cent	No.	Per cent	No.	Per cent
Male.........	11,319	93.2	394	93.8	7,211	92.8	3,714	94.0
Female.......	822	6.8	26	6.2	560	7.2	236	6.0
Totals....	12,141	100.0	420	100.0	7,771	100.0	3,950	100.0

Male drivers involved in serious motor vehicle accidents in Ontario during 1933 out-numbered females by about 14 to 1. Obviously, in the absence of several important factors, this ratio does not measure the relative driving dependability of the two sexes.

TABLE No. 16—AGES OF DRIVERS

Ages	In All Accidents		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Under 18 years........	172	1.4	4	.9	133	1.7	35	.9
18 to 24 years.........	2,287	18.8	102	24.3	1,509	19.4	676	17.1
25 to 40 years.........	4,644	38.3	167	39.8	3,049	39.3	1,428	36.1
41 to 54 years.........	2,205	18.2	78	18.6	1,470	18.9	657	16.6
55 to 64 years.........	594	4.9	29	6.9	406	5.2	159	4.0
65 years and over.....	205	1.7	11	2.6	137	1.8	57	1.5
Not stated...........	2,034	16.7	29	6.9	1,067	13.7	938	23.8
Totals..........	12,141	100.0	420	100.0	7,771	100.0	3,950	100.0

The percentages of drivers in the various age groups do not necessarily give indication of the relative driving ability of drivers in these groups, since no data are available as to the differences in mileages driven at different ages. It will be seen, however, that drivers over 65 years of age and drivers under 18 years of age make up only a little more than three per cent of all motor vehicle operators involved in accidents. This obviously disproves the commonly held opinion that the elderly and the very young are responsible for or cause most of the motor vehicle accidents in Ontario.

TABLE No. 17—LENGTH OF EXPERIENCE OF DRIVERS INVOLVED

Experience	All Drivers		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Less than three months	124	1.0	6	1.4	93	1.2	25	.6
Three to six months	66	.5	...	....	45	.6	21	.5
Six to twelve months	47	.4	2	.5	30	.4	15	.4
One to four years	1,887	15.6	64	15.2	1,272	16.4	551	14.0
Five years and over	7,583	62.5	262	62.4	5,007	64.4	2,314	58.6
Not stated	2,434	20.0	86	20.5	1,324	17.0	1,024	25.9
Totals	12,141	100.0	420	100 0	7,771	100.0	3,950	100.0

Here again it will be observed that it is not the new or inexperienced drivers who are most frequently involved in accidents, but rather those who should, and in fact do, know better, but who, through carelessness or recklessness, or a moment of inattention, fail to put into practice the lessons they have learned through experience. Less than two per cent of the drivers in accidents in 1933 were reported to have had driving experience of less than twelve months.

When we consider that most of the accidents which occurred in 1933 might have been avoided had drivers exercised more care, the so-called experienced drivers appear in a great many instances to have but little appreciation of their responsibilities in the proper manner of operating a motor vehicle.

TABLE No. 18—CONDITION OF DRIVERS INVOLVED

Condition	All Drivers		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Intoxicated	121	1.0	12	2.9	57	.7	52	1.3
Physical defect	38	.3	3	.7	26	.3	9	.2
Extreme fatigue	98	.8	6	1.4	54	.7	38	1.0
Normal	11,884	97.9	399	95.0	7,634	98.3	3,851	97.5
Totals	12,141	100.0	420	100.0	7,771	100.0	3,950	100.0

In the vast majority of cases, drivers were involved in accidents because of an indifference to the need of safe driving practices, rather than to any physical defect.

There was no appreciable change in the proportion of "normal" drivers from that for the previous year.

The intoxicated driver is a constant menace all the time he is on the road. And his action merits, and usually incurs, drastic punishment. But for every intoxicated driver involved in an accident last year, there were approximately 98 others who were reported to have been in normal condition who also became involved in accidents. The law can, and does, deal with the intoxicated driver. But it is an immeasurably more difficult task to reach the other ninety-eight normal drivers whose accidents are quite as certain to bring suffering and remorse into the homes of this Province. Only by securing the whole-hearted co-operation of every normal driver can we hope to materially improve our motor accident record.

TABLE No. 19—TYPES OF VEHICLES INVOLVED

Type	All Vehicles		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Passenger car	10,107	79.71	342	75.2	6,485	80.74	3,280	78.2
Commercial vehicle	1,971	15.54	87	19.1	1,118	13.92	766	18.3
Taxicab	176	1.39	6	1.3	109	1.36	61	1.5
Bus	75	.59	4	.9	45	.56	26	.6
Motorcycle	262	2.07	10	2.2	238	2.96	14	.3
Trailer	69	.55	4	.9	28	.35	37	.9
All others	14	.11	...	....	6	.07	8	.2
Not stated	5	.04	2	.4	3	.04	....	....
Totals	12,679	100.00	455	100.0	8,032	100.00	4,192	100.0

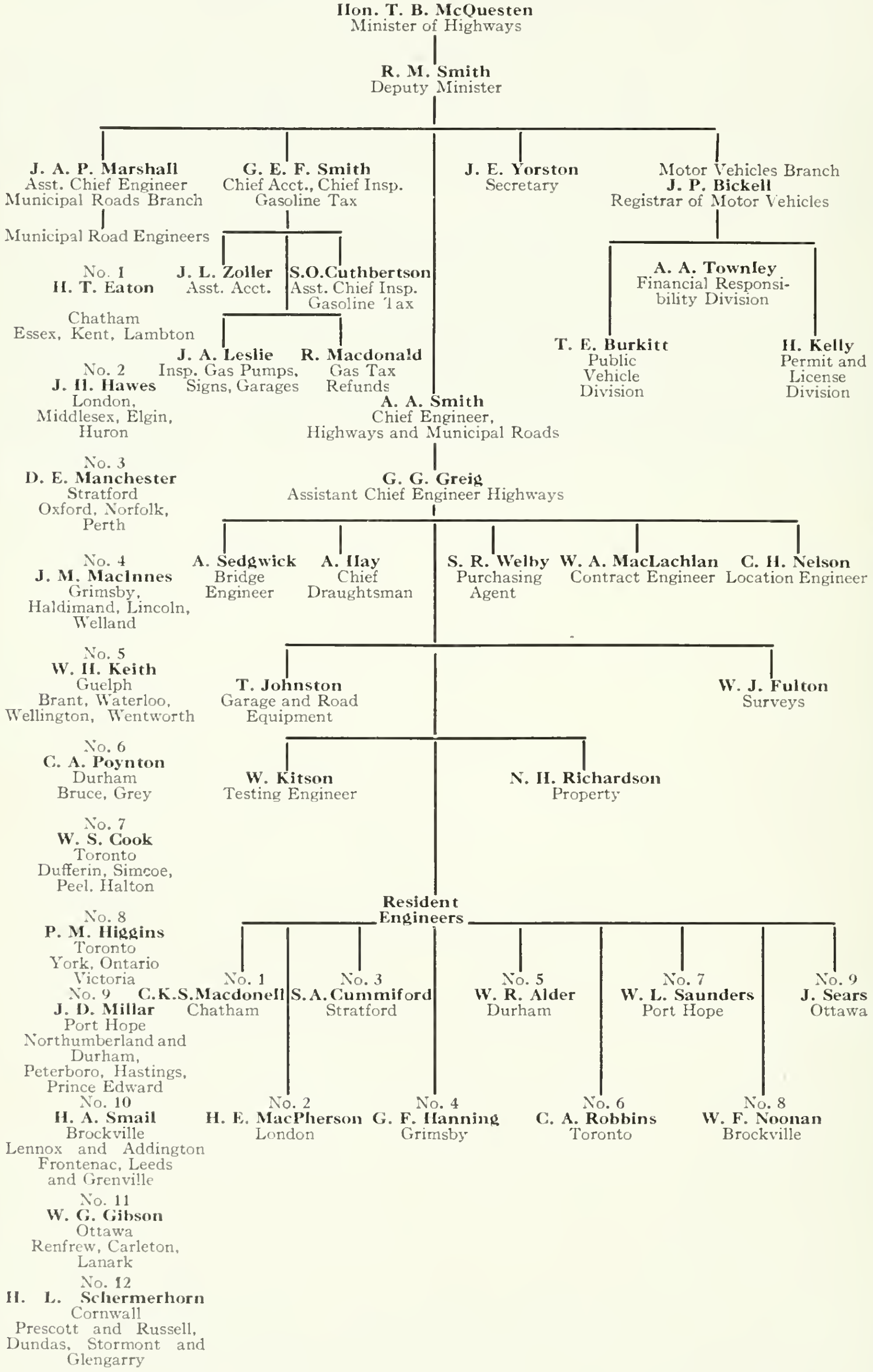
Commercial vehicles constituted about 11 per cent of the motor vehicles registered in Ontario during 1933, but made up 19.1 per cent of the vehicles in fatal accidents during that year. The average annual mileage per truck, however, is unquestionably much higher than that for passenger cars, so the figures do not necessarily indicate the relative liability to accident.

Vehicles involved in accidents during 1933 were 6.8 per cent less in number than in the previous year; passenger cars involved showed a decrease of 7.3 per cent; commercial vehicles 1.0 per cent, and the number of motorcycles implicated was 7.0 per cent less.

1934

ORGANIZATION CHART

ONTARIO DEPARTMENT OF HIGHWAYS



- **Hon. T. B. McQuesten**, Minister of Highways
  - **R. M. Smith**, Deputy Minister
    - **J. A. P. Marshall**, Asst. Chief Engineer, Municipal Roads Branch
      - Municipal Road Engineers
        - No. 1 **H. T. Eaton**, Chatham, Essex, Kent, Lambton
        - No. 2 **J. H. Hawes**, London, Middlesex, Elgin, Huron
        - No. 3 **D. E. Manchester**, Stratford, Oxford, Norfolk, Perth
        - No. 4 **J. M. MacInnes**, Grimsby, Haldimand, Lincoln, Welland
        - No. 5 **W. H. Keith**, Guelph, Brant, Waterloo, Wellington, Wentworth
        - No. 6 **C. A. Poynton**, Durham, Bruce, Grey
        - No. 7 **W. S. Cook**, Toronto, Dufferin, Simcoe, Peel. Halton
        - No. 8 **P. M. Higgins**, Toronto, York, Ontario, Victoria
        - No. 9 **J. D. Millar**, Port Hope, Northumberland and Durham, Peterboro, Hastings, Prince Edward
        - No. 10 **H. A. Smail**, Brockville, Lennox and Addington, Frontenac, Leeds and Grenville
        - No. 11 **W. G. Gibson**, Ottawa, Renfrew, Carleton, Lanark
        - No. 12 **H. L. Schermerhorn**, Cornwall, Prescott and Russell, Dundas, Stormont and Glengarry
    - **G. E. F. Smith**, Chief Acct., Chief Insp. Gasoline Tax
      - **J. L. Zoller**, Asst. Acct.
      - **S.O.Cuthbertson**, Asst. Chief Insp. Gasoline Tax
        - **J. A. Leslie**, Insp. Gas Pumps, Signs, Garages
        - **R. Macdonald**, Gas Tax Refunds
    - **A. A. Smith**, Chief Engineer, Highways and Municipal Roads
      - **G. G. Greig**, Assistant Chief Engineer Highways
        - **A. Sedgwick**, Bridge Engineer
        - **A. Hay**, Chief Draughtsman
        - **S. R. Welby**, Purchasing Agent
        - **W. A. MacLachlan**, Contract Engineer
        - **C. H. Nelson**, Location Engineer
        - **T. Johnston**, Garage and Road Equipment
        - **W. J. Fulton**, Surveys
        - **W. Kitson**, Testing Engineer
        - **N. H. Richardson**, Property
        - **Resident Engineers**
          - No. 1 **C.K.S.Macdonell**, Chatham
          - No. 2 **H. E. MacPherson**, London
          - No. 3 **S.A.Cummiford**, Stratford
          - No. 4 **G. F. Hanning**, Grimsby
          - No. 5 **W. R. Alder**, Durham
          - No. 6 **C. A. Robbins**, Toronto
          - No. 7 **W. L. Saunders**, Port Hope
          - No. 8 **W. F. Noonan**, Brockville
          - No. 9 **J. Sears**, Ottawa
    - **J. E. Yorston**, Secretary
    - Motor Vehicles Branch, **J. P. Bickell**, Registrar of Motor Vehicles
      - **A. A. Townley**, Financial Responsibility Division
      - **T. E. Burkitt**, Public Vehicle Division
      - **H. Kelly**, Permit and License Division

Annual Report, 1934

By R. M. Smith, Deputy Minister

The year 1934 shows a considerable increase in expenditure. Many projects which had been allowed to stand in abeyance over preceding years were undertaken and completed.

While capital expenditure was greater than in previous years, on the other hand revenues were increased to a very considerable extent. A synopsis of reports of the various branches within the Department indicates as follows:

Increased registration of passenger cars shows a total of 470,617, an increase of approximately 4 per cent over 1933 figures. Truck registration ran 64,436, motorcycles 4,468 and trailers 19,871, all showing increases over 1933. In all, the average increase over the previous year amounted to approximately 5 per cent. Drivers' permits, including those covering instruction permits and chauffeurs' licenses, totalled 735,381, an increase of almost 6 per cent over 1933. With the increase in registrations, this department shows an increase in revenue; $8,049,714.00 being collected, equal to 8.5 per cent increase over the preceding year.

In the following report an exhaustive study is made of the operation of the Financial Responsibility Law and its effect in promoting safer driving.

Records of all reported accidents, with complete details covering cause, time, place and other information relative to same, make interesting reading.

The report of the Accounting Department shows a net revenue of $21,102,160.00, including $12,961,343.55 collected as gasoline tax and $8,049,714.00 obtained through the Motor Vehicles Branch as mentioned above. This report further details the expenditure of the Department.

The report of the Chief Engineer of King's Highways indicates the construction of the greatest mileage of hard-surfaced roads completed by this Department in any single year, 244.43 miles of pavement being laid. Details are included as to the various types laid, with the total mileage of all surfaces to date.

An analysis is made of the methods of construction adopted, with short notes on Department specifications.

Snow clearing, ice treatment and winter road maintenance, with a view to the promotion of safe all-year driving, are emphasized.

In construction as well as maintenance the Province assumed 80 per cent of the cost, the balance being assessed against the county in which the work was done. Maintenance, under the direct control of the resident engineers, was given special consideration, the entire mileage (3409.13) being kept in a first-class state of repair.

Municipal roads, while under the direction of the municipalities and counties, are subsidized by the Province to the extent of from 40 per cent to 80 per cent on township roads, and 50 per cent on county roads. Engineers from the Department, in charge of the various districts, act in an advisory capacity, assisting and directing work within the municipality whenever necessary. Details as to work performed by municipalities, counties, etc., are included. While expenditures in the various municipal districts show a curtailment over previous years, it can be said that the municipal road has been brought to a much higher standard than formerly applied. Construction generally was much lighter, but maintenance, as with King's Highways, showed considerable improvement. Within the municipalities and counties and under their control, $6,368,796.36 was expended on their road systems.

Considering all highways in the Province, either municipal or provincial, outside of urban centres and not including Northern Development or Colonization Roads Branch, we find an expenditure of $19,066,352.33 was made.

REPORT OF THE HIGHWAYS ACCOUNTANT FOR THE YEAR 1934

By G. E. F. Smith, Chief Accountant

To R. M. Smith,
Deputy Minister of Highways.

The following is a summary of Expenditure and Revenue for the fiscal year November 1st, 1933, to October 31st, 1934.

EXPENDITURE

	1933-34
The King's Highways	$11,195,806 61
Grants to Counties	1,463,519 72
Grants to Townships	1,000,058 41
Grants to Indian Reserves	14,856 13
Grants to Connecting Links	35,235 57
Administration and Special Warrants	624,095 45
	$14,333,571 89

REVENUE

Miscellaneous Revenue	$ 23,370 27
Motor Vehicles	8,049,714 00
Gasoline Tax	12,961,343 55
Permits, Garages, Signs, Pumps, etc.	61,736 98
Sale of Property (Capital)	5,995 20
	$21,102,160 00

The Gasoline Handling Act became effective in June, 1934, and licenses were issued without charge. This act enables the Department to keep a closer check on dealers or Service Stations who might attempt to evade the Gasoline Tax Act.

Gross Gasoline Tax for fiscal year amounted to $13,861,511.85. From this amount, 43,628 claims for refund were paid, amounting to $900,168.30, leaving net Gasoline Tax Revenue $12,961,343.55.

REPORT OF CHIEF ENGINEER

1934 Construction

At the end of 1934 the King's Highway System was made up of the following types of road surface:

Cement concrete pavement	1,350.45 miles
Cement concrete pavement (10-foot strip)	47 "
Asphaltic concrete	225.32 "
Mixed macadam	557.31 "
Bituminous penetration	234.42 "
Retread pavement	80 "
Waterbound macadam	202.03 "
Gravel	712.6 "
Total	3,409.13 miles

Concrete Pavement, One Mile South of Lakefield.

During 1934, on the King's Highways the following construction was carried out:

Concrete pavement	126.01 miles
10-foot concrete pavement	32.77 "
Asphaltic concrete pavement with concrete slabs on both sides	8.65 "
Mixed macadam	45 "
Retread and bituminized gravel	28 "
Bituminous penetration	4 "
Grading	158 "
Bridges	19 "

During 1934 the Department assumed 398.39 miles of new King's Highways. Among important assumptions were the following:

Middle Road, Hurontario Street to Oakville.
Schomberg to Allandale.

Trenton via Carrying Place to Glenora Ferry.
Kingston to Glenora Ferry.
Tecumseh Road, Windsor, to Belle River.
Mitchell to Elginfield.
Thedford to Goderich.
Chatham to Sarnia.
Durham to Flesherton.
Elfrida to Highway No. 3.
Peterborough to Burleigh Falls.
Waterloo to Elmira.
Campbellford to Havelock.
Cataraqui to Sharbot Lake.
Fort Erie to Ridgeway.
Fenelon Falls to Rosedale.
Stratford to Tralee.
Forest South to No. 7 Highway.

On contracts undertaken in 1934, as a relief measure, labour was supplied to the contractor through the Provincial Department of Labour, with the exception of a small percentage of key men; the Department also reserved the right to rotate the supply of labour, men and teams at two weeks intervals, in addition hand labour was required to be used wherever possible.

As a check on the work, copies of certified pay rolls were furnished to the Department at intervals, as required.

An eight-hour day applied, with six days a week working period. Minimum rates of pay for labour, truck drivers, man and team, were embodied in the contracts.

A minimum schedule of rates paid by the ton mile for truck hauling on paving contracts, was applied to cover all materials which went to form part of the pavement proper as follows:

Up to 1 mile	18 cents
Between 1 and 2 miles	29 "
Between 2 and 3 miles	38 "
Between 3 and 4 miles	46 "
Between 4 and 5 miles	53 "
Between 5 and 6 miles	59 "

For all distances over six miles, the rate was six cents per ton mile additional.

For concrete pavement construction the metal centre joint was entirely done away with, the pavement being laid in 10-foot lanes, and steel forms were required and detours were not allowed. The spacing of expansion joints was changed from 80 feet to 65 feet.

For the final surface finish on concrete pavements, after the final belting, the surface of the concrete was finished by brooming.

The ponding method of curing was used on several contracts, with excellent results.

An Asphaltic Emulsion material was also used for curing, on a few contracts.

An improved specification for retread was adopted. A channel 21 feet wide and 6 inches deep was excavated and filled with approved gravel or crushed stone for a base course. After spreading and rolling, this base was then primed, and the surface material was either spread and mixed in place or plant mixed.

Some very important three and four-lane traffic roads were constructed, from London to Lambeth, from Hamilton to the Burlington turn, and Richmond Hill to Aurora on Yonge Street. On the first two, the old concrete was resurfaced with a two-course asphaltic concrete, and concrete slabs were built on either side. On Yonge Street, a 10-foot widening was constructed on one side of the old road, one portion built with concrete base and sheet asphalt top, and the balance with mixed macadam and 1½ inches sheet asphalt surface.

A subway under the T.H.&B. Railway at Smithville, which was commenced in 1933, was completed, and with the paving of the approaches the last remaining gap unpaved on No. 20 Highway between Hamilton and Niagara Falls was eradicated.

A large structure over the Credit River on the Middle Road to Hamilton, which was started late in 1933, was completed, with a roadway width to carry four lanes of traffic, and is a most important link in the development of the Middle Road as a super highway.

Relief Work

As soon as weather conditions were favourable, the Department entered on an extensive programme of shoulder widening, The programme, amounting to 254 miles of King's Highways, was distributed fairly evenly throughout the whole system. This work entailed a considerable amount of tiling, and earth excavation, and was done almost entirely by hand labour.

Snow Removal

Snow removal was carried out throughout nearly the complete system, and also a considerable number of county roads, the total mileage showing a large increase on the preceding years. In the early months very severe winter conditions occurred, and certain roads in the Durham Residency, also Arnprior to Pembroke, and Hawkesbury to Lancaster, were left closed for varying periods. The mileage of snow fence erected at the end of the year was 1,000 miles, which proved a very great factor in controlling drifts and enabling the snow plows to work much more efficiently.

1934—Construction by Residencies

On Residency No. 1, with Headquarters at Chatham.—Concrete pavement was laid on Tilbury Base Line from the Belle River sideroad westerly about five miles. This was the only section of concrete pavement laid during the year, both sides at the same time, and completed the concrete pavement between Tilbury and Windsor, via the Base line. Concrete was laid between Harrow and Kingsville, making a continuous concrete pavement between Harrow and Leamington. Ten miles of concrete were laid south from Petrolia; this completed the pavement between No. 7 Highway, north of Wyoming, and No. 2 Highway, at Thamesville. Concrete was also laid between Morpeth and Ridgetown.

Six and a half miles of retread were constructed south of Amherstburg.

Grading operations were carried on between Sarnia and Wallaceburg, and also a mile south from Forest.

Three bridges were constructed on the Sarnia-Wallaceburg section, and one south of Forest.

On Residency No. 2, with Headquarters at London.—A ten-foot strip of concrete pavement was laid between Elginfield and Ailsa Craig.

From London, south to Lambeth, a two-course asphaltic concrete pavement was laid on the old concrete, with a five-foot strip of concrete eight inches thick on either side.

South from Bayfield, three miles of bitumenized gravel was tried out, and a mile of Laykold was put down at the east entrance of St. Thomas.

Mixed Macadam, Highway No. 26, West of Craigleith.

Twelve miles of new grading were completed north of Port Burwell, and a bridge over Otter Creek was constructed on the same Highway.

On Residency No. 3, with Headquarters at Stratford.—Six miles of concrete pavement west of Grand Valley side road completed the concrete between Arthur and Orangeville.

Five bridges were completed on this residency, of which two were over Black Creek and two over the Maitland River.

On Residency No. 4, with Headquarters at Grimsby.—Seven and three-quarter miles of concrete pavement south of Galt completed the pavement between Galt and Brantford. Over six miles of concrete pavement were laid west from Ridgeway to connect with Crystal Beach side road.

A new subway was completed at Smithville, and the approaches were paved with concrete.

Over seven miles of mixed macadam were laid west from the Hamilton-Caledonia Road, connecting No. 20 Highway with No. 2, and a sharp turn at the top of Ancaster Hill was improved and paved with mixed macadam.

From the Burlington turn westerly to the first bridge on the Hamilton Highway, an eighteen-foot two-course asphaltic concrete pavement was laid on the existing concrete pavement, and ten-foot concrete slabs eight inches thick were constructed on either side.

Four miles of new grading were completed south of Binbrook, and a new bridge at Allanburg.

On Residency No. 5, with Headquarters at Durham.—Eight miles of concrete were laid north of Clinton, and fifteen miles of concrete between Dundalk and Markdale, about six and one-half miles of which were paved with a ten-foot strip. Hanover to Walkerton was also paved with concrete, and four miles east of Kinloss, leaving only a mile of gravel road between Kincardine and Walkerton.

Eight and a half miles of mixed macadam, south of Chatsworth, completed the pavement between Hamilton and Owen Sound. Mixed macadam was also laid between Thornbury and Collingwood. In the latter case a one-inch top course was laid on the mixed macadam instead of using a surface treatment.

On Residency No. 6, with Headquarters at Toronto.—A five-mile gap west of Minesing was paved, largely with a ten-foot strip, making the concrete pavement continuous between Midhurst and Collingwood.

Seven miles of concrete pavement were laid north of Midhurst on the Penetang Road, and eight miles of the ten-foot strip north of that was widened to twenty feet.

Six and one-half miles of concrete west of Brooklin completed the pavement between Langstaff and Brooklin.

Over four miles of mixed macadam with a one-inch trap rock surface course, were laid south of the Severn River.

Between Aurora and Richmond Hill a ten-foot strip was laid on the east side of the existing twenty-foot pavement. This being laid partly with a six-inch mixed macadam base, covered with a one and one-half inch sheet asphalt top, and partly with a seven-inch concrete base, on which was placed an asphalt binder course and a sheet asphalt top.

The grading on the Middle Road was completed as far as Oakville, and eighteen miles of new grading were completed north of Schomberg on the Allandale Road. Two bridges were constructed on this latter section, and a large bridge over the Credit River on the Middle Road, which was commenced late in 1933, was completed.

On Residency No. 7, with Headquarters at Port Hope.—Six miles of new concrete pavement south of Lakefield completed the pavement between Peterboro and Lakefield. Three and a half miles of concrete were constructed between Trenton and Carrying Place.

Six miles of retread were built south from Bobcaygeon, and nine miles of mulch and retread were laid north of Trenton, and on No. 7 Highway at Marmora and west of Perth by day labour.

Thirty-two miles of grading were carried out on No. 7 Highway in the vicinity of Peterboro and west from Norwood, and between Havelock and

Actinolite. The road was also graded from Havelock to Campbellford, and a few miles north from Tweed, completing the grading between Tweed and No. 7 Highway.

New bridges were constructed at Marmora and Moira River.

On Residency No. 8, with Headquarters at Brockville.—Four and a half miles of concrete were laid south of Winchester, leaving a gap of four and one-half miles north from Williamsburg to make the pavement continuous from Morrisburg to Ottawa.

Twelve and a half miles of concrete were laid from Seeley's Bay to Elgin, and this, with four miles of bituminous penetration at Portland, gives a continuous hard surface from Kingston to Smith's Falls.

Fourteen miles of grading were completed south of Sharbot Lake on the Cataraqui Road. Seven miles west of Perth and six and one-half miles south from Kaladar were also graded.

A new bridge was constructed at Morton.

On Residency No. 9, with Headquarters at Ottawa.—The paving of a six-mile gap north of Haley's completed the pavement between Pembroke and Renfrew.

Concrete was also laid between Hawkesbury and Vankleek Hill, and five and one-half miles of a ten-foot strip were built south from Alexandria.

The remaining mile of water-bound macadam on Carling Avenue was topped with mixed macadam.

Three and a half miles of retread were laid north of Almonte.

Grading was done on three diversions near Plantagenet, and also at McCrimmon's Corners.

BRIDGES COMPLETED ON THE KING'S HIGHWAYS DURING 1934

Name	Type	Span	Road No.	Township	County
Allan Park	Conc. R. Frame	40′ 0″	4	Bentinck	Grey
Arthur No. 10	Conc. R. Frame	40′ 0″	9	Luther W. and Garafraxa W.	Wellington
Baby Creek	Conc. R. Frame	39′ 0″	40	Moore	Lambton
Beaudette River	Conc. R. Frame	52′ 0″	34	Charlottenburg and Lancaster	Glengarry
Black Creek No. 2 (Tralee)	Conc. R. Frame	40′ 0″	19	Mornington	Perth
Black Creek No. 3 (Tralee)	Conc. R. Frame	50′ 0″	19	Mornington	Perth
Credit River	Conc. Arch Ribs and Conc. Beam & Slab.	4 at 145′ 0″, 3 at 49′ 0″	Middle Rd.	Toronto	Peel
Crow River	Conc. R. Frame	45′ 0″, 50′ 0″, 45′ 0″	7	Marmora	Hastings
Draper's Bridge	Steel Beams and Conc. Slabs	13′ 0″, 35′ 0″, 13′ 0″	27	W. Gwillimbury	York
Frankford No. 1 Exten.	Conc. Slab	21′ 0″	33	Sidney	Hastings
Frankford No. 3	Conc. R. Frame	30′ 0″	33	Sidney	Hastings
Hickory Creek	Conc. R. Frame	42′ 6″	7	Warwick and Plympton	Lambton
Maitland River No. 2	Conc. R. Frame	48′ 0″	23	Elma	Perth
Maitland River No. 3 Exten.	Conc. Beam and Slab	36′ 2″	23	Elma	Perth
Moira River	Conc. Arch	80′ 0″	7	Marmora	Hastings
Morton Bridge	Steel L. Girder, encased	32′ 0″, 47′ 0″, 32′ 0″	15	S. Crosby	Leeds
Otter Creek No. 3	Conc. R. Frame	36′ 0″	19	Bayham	Elgin
Running Creek (Wallaceburg)	Steel Beams	20′ 3″, 49′ 9″, 20′ 3″	40	Gore of Chatham	Kent
Schomberg	Conc. R. Frame	44′ 0″	27	W. Gwillimbury	York
Sheridan Diversion	Conc. Barrel Arch	30′ 0″	Middle Rd.	Trafalgar	Halton
Washago	Conc. R. Frame	46′ 5″	11	Orillia N.	Simcoe
Whitebread Drain	Conc. R. Frame	26′ 0″	40	Gore of Chatham	Kent

REPORT ON MUNICIPAL ROADS

Report upon the work of the Municipal Roads Branch for the year 1934

J. A. P. MARSHALL, Assistant Chief Engineer of Municipal Roads

COUNTY ROADS

Since the passing of The Highway Improvement Act and to the end of 1934, a total of $124,222,307.81 has been expended on construction and maintenance on county roads, of which the Province has contributed $58,351,345.35. This includes the county expenditure during 1934, on which the Provincial subsidy was paid in 1935.

At the end of 1934 the Province was paying subsidies to the counties on 7,869 miles of county roads—approximately 15 per cent of the total road mileage in the area covered by the County Road System.

Approximately 98 per cent of the road mileage under the County Road System has been surfaced with gravel, stone or other more durable class of surfacing.

Expenditure on county roads in 1934 was as follows:

	Total Expenditure	Provincial Subsidy
Construction		
County Roads	$1,840,813 57	$ 919,983 60
Maintenance		
County Roads	1,550,955 39	775,307 75
Total Expenditure	$3,391,768 96	$1,695,291 35

The work on which the above expenditure for construction was made, included the following:

Gravel or stone	206.49 miles
Surface-treated gravel or stone	21.97 "
Low-cost bituminous surfaces	72.38 "
Mixed macadam and asphaltic concrete	12.10 "
Cement concrete	3.13 "
Total	316.07 miles
Bridges over 10-foot span	56
Concrete slab culverts	41
Pipe and tile culverts	636

In addition, approximately 2,157 miles of stone and gravel roads were re-surfaced.

Unemployment Relief

Early in 1934, agreements were entered into with the Dominion Government, the Provincial Government and the counties, in order to relieve the unemployment situation. Thirty-three of the thirty-seven counties in the County Road System participated in this arrangement. Two-thirds of the direct labour costs were borne by the two governments and the remaining one-third of labour costs, borne by the counties, was subsidized by the Highway Department. In addition to this, the remaining cost of materials, supervision, etc., was subsidized by the Highway Department.

This arrangement was of great assistance to the counties and, in those counties particularly where considerable labour was employed, enabled many of the counties to undertake work which would not otherwise have been attempted. Special mention should be made of the counties of Huron, York, Ontario and Hastings.

The thirty-three counties received back in the matter of additional assistance through the Unemployment Relief Branch the sum of $614,589.36.

Construction Work

A detailed list of the work undertaken by the various counties is found further in this report grouped in districts. Special mention should be made of the Bridgeport Bridge (see Photo, page 00), built by the Waterloo Suburban Area Commission under the supervision of Mr. D. J. Emry, and also of the construction of the county road westerly from Schomberg, extending 4.69 miles, carried out by the Counties of York and Simcoe under the supervision of Mr. H. C. Rose. A number of the counties are to be commended on the alignment improvement on their various systems.

Maintenance Work

This expenditure is essential for the protection of the large investment made in previously constructed roads. Several of the counties during the past year have undertaken the laying of a low cost bituminous surface with the endeavour to cope with high maintenance cost and to preserve local materials. In addition to surface treatment of gravel and stone roads such as retread and mulch have been laid with satisfactory results. The various county engineers are to be commended for the keen interest shown in this, a most important development in the improvement of the county road systems of Ontario, and we look for further developments in other counties which have hesitated to embark on this new improvement.

Mention should be made of the development here of stabilized roads built by calcium chloride and salt. The counties of Huron, Bruce, Dufferin, Ontario and Carleton undertook to eliminate the dust nuisance in this manner, and developments will be watched with interest.

Road Accounting

The uniform system of keeping road accounts has now been established in every county, and the procedure of auditing the accounts of the county officials and the assistance given by the Department has been most favourably received and greatly appreciated by the counties.

Road Conference

The Twentieth Annual Road Conference was held on the 19th and 20th of February, 1934, and was largely attended by the various municipal officials. This conference is becoming more popular each year, and is creating a great interest among the officials. Two hundred were registered at this conference, which was one of the largest meetings ever held.

In addition, district meetings were held at London and at Chatham, and these local meetings created a good feeling between the municipality and the Department, and the information is greatly appreciated by all those who attend.

County Suburban Roads

The mileage of suburban roads is 734 miles, the expenditure on which, at the end of 1934, amounted to $23,406,016.68, of which the cities and the separated towns have contributed $6,134,966.63, or five per cent of the total expenditure made on the County Road System.

In 1934, the expenditure on county suburban roads was $792,117.76, of which the province contributed $396,058.89 and the cities $219,838.56.

Retread, Highway No. 36, One Mile South of Bobcaygeon.

DISTRICT No. 1—Counties of Essex, Kent and Lambton

Essex.—During the season, Cedar Creek Bridge was constructed, consisting of one 65-foot span with twenty-four feet of roadway. Twenty miles of dust-layer was applied, and one hundred and five miles of county roads were re-surfaced.

Kent.—On Road No. 21, Middlesex-Kent boundary, a deep hill cut was made, and on Road No. 31 the old sixteen-foot concrete pavement was widened to twenty feet and surfaced with a lay-cold mixture. In urban municipalities 2.25 miles of mulch was laid and approximately thirty-five miles of county road were re-surfaced.

Lambton.—Four miles of grading was carried out during the season, and approximately one hundred miles of county road were re-surfaced with gravel or stone.

DISTRICT No. 2—Counties of Elgin, Middlesex and Huron

Elgin.—The Ralston Hill on the Talbot Road in Bayham Township was cut down and graded. The approximate excavation was 40,000 cubic yards. A new pier and floor was built on the Wardsville Bridge over the River Thames.

Middlesex.—Three miles of concrete pavement were laid on the Hamilton Road in the London suburban area, extending easterly from the City of London. A new bridge at Fanshawe over the River Thames consisting of one 176-foot steel span was constructed on Suburban Road No. 23. Maintenance work was carried out over the entire county and suburban system.

Huron.—This county carried out considerable heavy grading under their relief programme; in all, fifteen miles of new grade were constructed.

Adequate maintenance work was carried out over the entire system.

DISTRICT No. 3—Counties of Norfolk, Oxford and Perth

Norfolk.—Five miles of new grade were constructed, tiled, and culverts placed where necessary. Nineteen miles of bituminous roads were re-surfaced. Twenty-five miles of county roads were re-surfaced with gravel. Special mention should be made here of the destruction of weeds by use of chemicals on Norfolk County Road System which has resulted in a considerable saving of money.

Oxford.—Two new steel superstructures were erected on existing abutments of 28-foot span and 60-foot span respectively at Innerkip and the Blandford-Zorra East Township boundary. Seventy-three miles of county roads were surfaced with gravel, and ten miles of dust-layer were applied. Two hundred and thirty signs were erected at important intersections.

Perth.—Five miles of road were widened, straightened and tiled where necessary, and covered with gravel. Approximately one hundred and fifty miles of re-surfacing was carried out on county roads.

DISTRICT No. 4—Haldimand, Lincoln and Welland

Haldimand.—The new grading consisted of 5.5 miles of new alignment and grade improvements, and replacing five sharp turns with easy curves. The Selkirk Bridge, consisting of two 46-foot 9-inch spans and 24-foot roadway was constructed. This bridge was of concrete and rigid frame type. Re-surfacing consisted of eleven miles of gravel, eighteen miles of stone, and twenty-nine miles of bituminous surfacing. Fifty-two miles of bituminous roads were cold patched. A site was purchased at Cayuga for a storage shed, repair shop and yard for the county equipment and supplies.

Lincoln.—Two curves on the Merrittville Road were improved. Fifty-one miles of re-surfacing was done with bituminous material, and 6.3 miles of crushed stone was applied. Cold patching was done over 109.61 miles. Twenty-two hundred feet of guard rail was erected during 1934.

Welland.—Improved alignment was carried out on County Road No. 15, and also on County Road No. 8 in Port Robinson. Re-surfacing with bituminous materials was carried out on 43.5 miles of roads, and cold patching was carried out on 93.5 miles of bituminous surfaced roads.

DISTRICT No. 5—Brant, Waterloo, Wellington and Wentworth

Brant.—Mixed macadam was laid on nine miles of county and suburban roads. This county has done a lot of interesting work in the development of low-cost bituminous surfaces. The Cockshutt Road was covered with a light surface of fine sand and bituminous plant mix to seal the original wearing surface.

Waterloo.—Sixteen miles of low cost bituminous surface was laid on various portions of the Waterloo County Road System. Considerable heavy grading was done during 1934. Three bridges were constructed—the Bridgeport Bridge, the New Dundee Bridge and Gremm's Bridge. The Bridgeport Bridge is of reinforced concrete, bow-string arch, consisting of five spans each, a total length of four hundred and eleven feet, and costing $66,000.00.

Wellington.—On Guelph Suburban Road No. 61, hill cutting was carried out. On Leitch's Road No. 61 considerable widening of the old grade was done.

Cut and Fill, Seven Miles South of Kaladar.

A new abutment for the Victoria Bridge in Elora was constructed. On Road No. 60 bituminous retread surface of 2.7 miles was laid.

Wentworth.—Retread surfaces were laid in the villages of Binbrook and Carlisle. Grading and widening through the Beverly swamp was carried out. On the Sydenham Road, 1,010 square yards of cement-bound macadam were laid. This was partly in the nature of an experiment, and several different proportions in the grout mixture were used. On the West Brow Drive, 8,806 square yards of retread top were laid. On the East Brow Drive, grading and building a base, followed by a retread top, was undertaken from Ottawa Street south and easterly 1.25 miles. Barton Street was widened and dangerous ditches eliminated, and at road intersections corners were cut off. 228,000 gallons of bituminous material was used during 1935.

DISTRICT No. 6—Bruce and Grey

Bruce.—Six and one-half miles of retread surface were laid on County Road No. 9, from Clavering south to the village of Hepworth. Three and one-half miles of grading and surfacing was done on County Road No. 4, being the Huron-Bruce boundary. Kincardine Bridge, consisting of 190-foot span, was constructed. Four miles of calcium chloride stabilized road was built on County Road No. 2 south of Tiverton.

Maintenance work on the remainder of the county road system was adequately carried out.

Grey.—Five miles of low cost bituminous surface was laid on the Owen Sound suburban area on the Owen Sound-Hepworth Road. This practically completes a hard-surfaced road between these two points. 1.25 miles of retread was laid in Clarksburg. Hill cutting was carried out on County Roads 10, 13 and 14, along with widening and curve reduction.

DISTRICT No. 7—Dufferin, Halton, Peel and Simcoe

Dufferin.—The Taylor Hill in East Garafraxa was widened out to 26 feet and finished to a six per cent grade involving the excavation of 5,200 cubic yards. 1.25 miles of stabilized calcium chloride road was laid on county roads.

Three bridges were constructed of reinforced concrete. Approximately 20,000 cubic yards of gravel was placed on the county road system.

Halton.—A bituminous retread surface was laid on Campbellville, and a bituminous gravel mulch was laid in Milton. Three miles of heavy grading was undertaken.

Peel.—Very little construction work was undertaken during 1934. The whole county road system was well maintained and kept open during the winter months.

Simcoe.—The work here consisted mainly of maintenance work. Two reinforced concrete bridges, each having a span of twenty-five feet, were built.

DISTRICT No. 8—Ontario, Victoria and York

Ontario.—From Claremont village southerly for a distance of 1.10 miles a retread surface was laid. One mile of widening road in the Scugog Marsh on County Road No. 14 was undertaken. Considerable grading was carried out on other Roads Nos. 7, 8, 9A, 12 and 20. The Mustard Bridge of reinforced concrete beam construction, 35-foot span, was built.

Victoria.—From Fenelon Falls easterly a retread surface was laid for 0.7 miles. Considerable grading and hill cutting was done on County Roads Nos. 8, 13, 17 and 18. Fifty-four miles of gravel re-surfacing and fourteen miles of bituminous surface treatment was carried out. In addition, thirty miles of dust-layer was applied.

York.—Bathurst Street from Hopewell to Glencairn, a non-skid surface was laid on black base and also on Eglinton Avenue from the Don Mills Road easterly. Penetration macadam was laid on the Don Mills Road from Steele's Avenue northerly, a distance of 2.51 miles, and also on Eglinton Avenue, from the Woodbine Bridge northerly, for a distance of 1.67 miles.

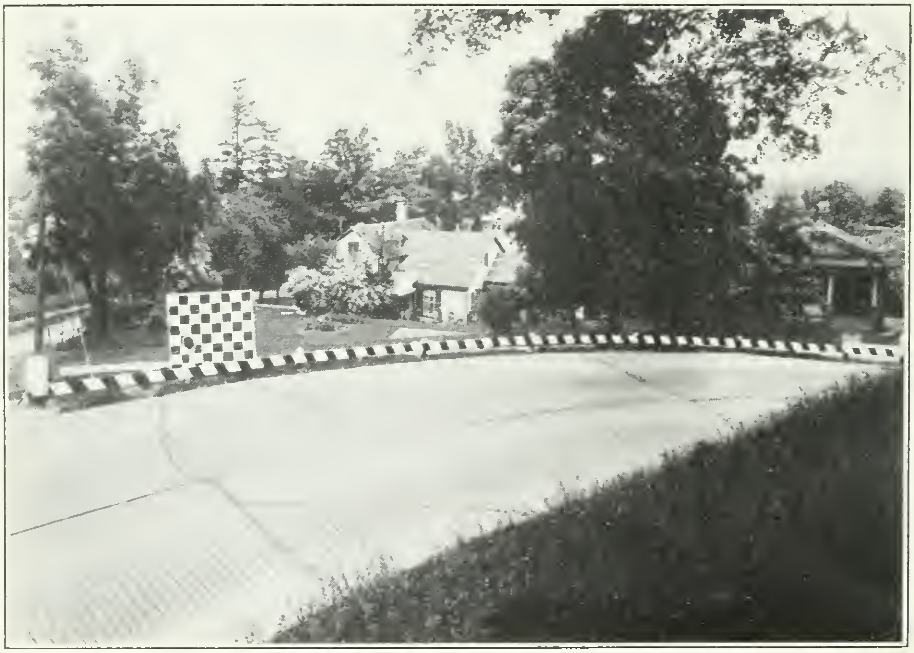
From Schomberg westerly on the boundary of York and Simcoe Counties, 4.69 miles of grading and gravelling was done, approximately 76,236 cubic yards. The width of the new grade is thirty feet.

Fifty miles of bituminous surface treatment was carried out.

DISTRICT No. 9—HASTINGS, NORTHUMBERLAND AND DURHAM, PETERBORO AND PRINCE EDWARD

Hastings.—A large programme of relief work was carried out in the northern section of the County during the winter of 1934-35. Hill cutting and fill were carried out at West Huntingdon. Rock grading, re-alignment and crushed stone surfacing was done between Madoc and Bancroft.

Northumberland and Durham.—Gravel mulch 1.2 miles in length was laid on Road No. 18 at Coldsprngs. Re-alignment and grading was carried out on Road No. 23. The Washington Bridge on Road No. 1 was widened, and Black's Bridge on Road No. 23, consisting of a 20-foot span, was constructed at Castleton.



"Tyton Guard Rail", at Paris, Ontario.

Peterboro.—A gravel mulch road 2.20 miles in length was laid on the suburban area, Chemong Road No. 5. Three miles of the Warsaw Road No. 4B was graded and surfaced with crushed gravel. Grading and gravelling was carried out on various sections of the county and suburban system as unemployment relief work. Extensive repairs were also made to the Chemong Floating Bridge.

Prince Edward.—The Allisonville Bridge on County Road No. 2, of rigid frame, reinforced concrete type, consisting of a single span of 34-foot 6-inch, and the Fish Lake Bridge on Road No. 5 of 16-foot 6-inch span, were constructed during 1934. Twenty-eight miles of road were surfaced, treated with bitumen, and dust-layer was applied on sixteen miles of road.

DISTRICT No. 10—FRONTENAC, LENNOX AND ADDINGTON, LEEDS AND GRENVILLE

Frontenac.—This County continued their programme of mixed macadam and 2.35 miles of this type were laid on County Roads Nos. 1, 4, 4A and 6. All surface treatment has been done by hand, and a real saving has been made, and these roads are kept in good shape at a minimum of cost.

Lennox and Addington.—This County did not undertake any construction in 1934, but all constructed roads were kept in good shape. The County crushed its own stone chips and surface-treated all roads that required attention by contract.

Leeds and Grenville.—One mile of mixed macadam was laid on County Road No. 3 north of Lansdowne, and one and one-half miles of retread surface was laid on County Road No. 16, east of Merrickville. Considerable rock work and widening was done on County Roads numbers 8, 10 and 11.

DISTRICT No. 11—CARLETON, LANARK AND RENFREW

Carleton Suburban Area.—The widening of the Richmond Road in Westboro village was continued for a short distance. On the River Road, 0.9 miles of gravel road was stabilized with salt and calcium chloride.

Maintenance work was kept to the usual high standard here.

Considerable re-surfacing was done, and improved alignment and grading carried out in small sections.

Lanark.—Existing hard-surfaced roads received adequate attention. On Road No. 12, 4,000 cubic yards of rock excavation were made to eliminate a dangerous curve. Balance of grading was in small sections.

Renfrew.—At the Clay Bank Bridge one new 45-foot span was built, along with one new abutment.

Maintenance work was adequately carried out over the entire system.

DISTRICT No. 12—PRESCOTT AND RUSSELL, STORMONT, DUNDAS AND GLENGARRY

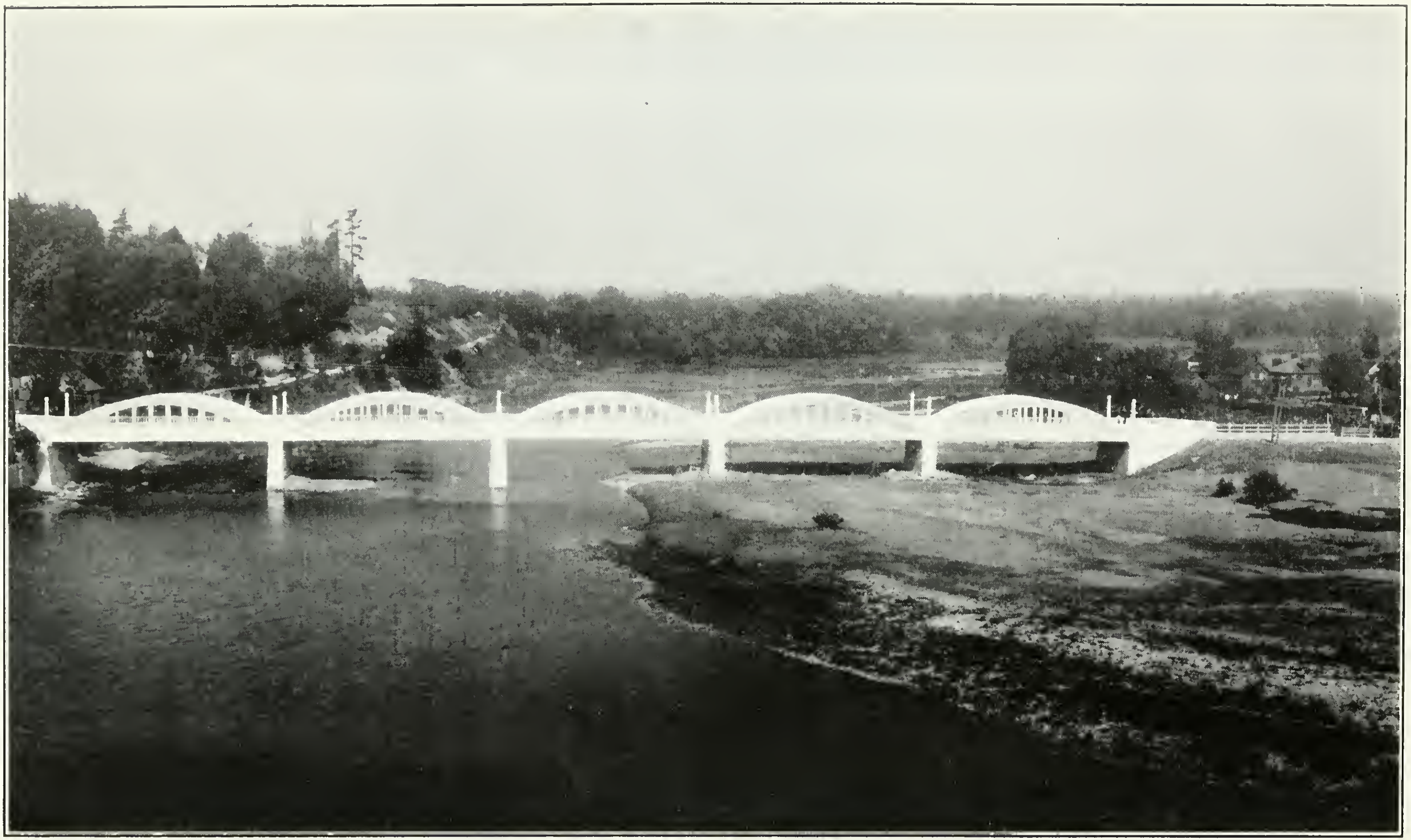
Prescott and Russell.—County Roads in Cumberland Township were re-surfaced with gravel. Patching and surfacing old macadam roads was carried out. Practically no construction work was carried out during 1934.

Stormont, Dundas and Glengarry.—The counties extended their low-cost type of county road improvement by 8.75 miles. Considerable mileage was widened and many bad curves eliminated.

The abutments, pier and approaches were constructed on the Crysler Bridge.

Twenty-five miles of re-surfacing was done on various portions of the County Road System.

This County has a splendid maintenance organization.



Bridgeport Bridge, Reinforced Concrete, Bowstring Arch, 411 Ft. in Length, on a Suburban County Road near Kitchener.

TOWNSHIP ROADS

The total approved expenditure in 1934 of the 338 townships receiving aid under The Highway Improvement Act amounted to $2,934,805.99, which is $451,432.08 more than 1933. Subsidies amounting to $1,229,523.31 were paid through the Highway Department, and in addition 188 townships received assistance to the extent of $539,482.10 through the unemployment relief agreements.

The advice and co-operation of the engineers of the Department has been of untold value to the townships, and is having a marked effect upon the nature of township road improvement throughout the Province. In elimination of dangerous curves, brush obstructions, narrow fills, bridge and culvert construction, the impetus toward prompt action and the advice and guidance in the matter of costs and methods have been found to be sound, economical and worthy of adoption.

The township work for 1934 consisted chiefly of re-surfacing, dragging, and mainly expenditure of general maintenance. The main objective of every township council should be to provide the farmer with a safe and convenient road in seasons of the year when he needs it most.

The following shows the growth of provincial aid to townships on road improvement under the provisions of The Highway Improvement Act:

1916	$ 1,241 71	towards Superintendent's salary
1917	1,608 72	" " "
1918	1,910 59	" " "
1919	2,620 60	" " "
1920 (184 townships)	340,973 38	commencement of aid on improvement
1921 (294 ")	708,486 91	
1922 (312 ")	649,601 47	
1923 (315 ")	614,037 88	
1924 (320 ")	638,940 11	
1925 (272 ")	988,633 29	
1926 (295 ")	1,317,146 17	
1927 (307 ")	1,619,169 74	
1928 (324 ")	1,802,640 64	
1929 (337 ")	2,105,741 41	
1930 (341 ")	2,451,334 10	
1931 (344 ")	1,805,658 51	
1932 (343 ")	1,315,025 55	
1933 (338 ")	988,342 09	
1934 (338 ")	1,229,523 31	
	$18,575,254 56	

INDIAN RESERVES

During the year 1934 the expenditure made on Indian Reserves was $40,236.98, of which the Department subsidy amounted to $19,089.89. Thirteen Indian Reserves are participating in Departmental assistance under The Highway Improvement Act.

Conclusion

The county engineers and superintendents of the various counties and suburban commissions along with the township road superintendents are to be commended for their keen interest in the improvement of rural roads throughout Ontario, and this Department acknowledges with appreciation their whole-hearted co-operation in this great work for the welfare of Ontario citizens.

APPENDICES

Nos. 1 to 10

APPENDIX

DETAILS OF CONSTRUCTION—

County	Bitus.: Mixed Method	Culverts and Extensions Built		Bridges Built	Miles of Grading	Miles of Gravelling
		Culverts	Exts. and C.I.P.			
Brant						
Bruce			1 Ext., 1 C.I.P., 2 P. Ext.			10.35
Carleton	1.23					
Dufferin		5	2 Ext., 9 C.I.P.		6.0	8.0
Dundas, Stormont and Glengarry		5	5 Ext.	1	5.4	5.4
Durham and Northumberland		12	40 C.I.P., 1 C.I.P Ext.		13.1	7.9
Elgin		7		1	12.0	12.0
Essex	6.4		1 Ext.			7.0
Frontenac		9			14.0	14.0
Grey		1	1 Ext., 3 C.I P., 22 Ext.	1		42.41
Haldimand		9	1 Ext., 3 C.I P.		1.4	
Halton						
Hastings		13	1 Ext., 6 P. Ext., 85 C.I.P	4—2 Ext	34.07	67.91
Huron		6	2 C.I.P., 12 C.I.P. Ext.			47.0
Kent		2	1 Ext.	1	6.6	6.6
Lambton		12	13 Ext.	4—1 Ext.	27.7	65.5
Lanark						
Leeds and Grenville	7.5			1	2.7	
Lennox and Addington					2.0	
Lincoln			6 C.I.P.	1 Subway	.5	
Middlesex		14				22.0
Norfolk						
Ontario						
Oxford						
Peel		34		2	8.64	
Perth		1		3—1 Ext		24.0
Peterborough		18	1 Ext., 50 C.I.P., 3 Ext.		25.84	31.98
Prince Edward						
Renfrew			1 Ext			
Russell and Prescott		3	2 Ext.		1.5	
Simcoe	4.28	39		3	14.6	29.1
Victoria		4	5 C.I.P., 6 C.I.P. Ext.		5.94	17.4
Waterloo					.3	
Welland			13 Ext., 7 C.I.P.		6.7	
Wellington				1		
Wentworth		21	29 C.I.P		10.8	
York						

No. 1

KING'S HIGHWAYS, 1934

Miles of Bit., Pen. & Traffic Bound Macadam	Miles of Shoulder Widening	Miles of Asphalt Concrete	Miles of Concrete Pavement	Lin. Ft. of Guard Rail	Lin. Ft. of Storm Sewers and Tiling	Miles of Surface Treatment	Miles of Gravel Road Maint.	Miles of New Fence Erected
....	1.0	....	4 05	....	270	6.0	....	....
....	3.5	....	9.3	3,001	8,011	....	10.35	....
....	22.5	....	....	1,200	8,007	17.65	....	.5
....	....	....	8.68	22,259	44,455	....	14.2	....
			10′4.52					
....	6.0	0.2	5.51	1,200	4,300	10.7	15.5	3.7
1.85	21.5	....	3.35	10 348	....	1.85	26.83	14.97
....	19.3	....	....	2,400	37,212	....	12.0	2.03
....	12.7	....	11.9	252	53,280	....	25.4	6.8
....	7.0	1.0	.25	20,000	1,000	18.0	45.0	14.0
16.8	4.5	....	12.21	10,470	343,836	14.7	42.41	2.0
1.4	6.9	1.85	....	....	....	3.6	....	....
....	12.13	....	....	....	....	3.0	....	....
6.05	17.9	....	....	16,790	....	24.81	83.31	54.56
2.2	1.2	....	8.0	5,600	23,017	3.0	47.0	1.7
....	5.2	....	3.9	51,428	40,588	....	19.1	7.1
....	....	....	10.0	....	81,207	....	75.5	20.8
....	9.1	....	....	....	23,773	21.0	21.0	....
4 0	9.3	....	12.0	....	3,000	47.0	12.0	....
....	4.0	....	....	....	....	25.6	52.0	....
....	....	....	.5	....	2,000	13.1	....	....
....	31.2	5.2	10′ 10.2	800	14,600	....	22.0	26.7
....	2.5	....	....	....	....	....	....	....
....	10.5	....	6.48	....	....	2.0	26.1	....
....	3.6	....	....	4,800	....	10.0	....	0.5
8.64	16.25	....	....	....	....	13 0	3.0	17.6
....	17 7	....	....	....	....	2.0	44.0	....
....	6.0	....	5.86	....	....	....	48.73	35.12
....	7.2	....	....	....	....	18.5	....	....
			10′1.3					
....	....	....	4.4	3,200	20,550	2.4	31.7	....
1.55	7.5	....	5.66	3,500	24,239	10.5	....	3.0
	(8.4 1 side)		10′8.7					
....	37.1	....	11.05	8,190	800	....	95.6	22.8
5.94	6.0	....	....	....	....	10.1	28.6	3.7
....	13.0	....	3.68	....	48	....	....	.5
....	3.95	.8	6.7	....	1,700	5.0	....	....
....	9.7	....	....	....	680	7.3	....	....
....	15.80	10.8	3 6	....	3,000	10.8	....	2.2
....	29.10	7.66	....	....	2,640	9.0	1.5	....

APPENDIX No. 2

EXPENDITURE ON THE KING'S HIGHWAYS, 1934

	Construction	Maintenance	Total Expenditure	Cost to Province	Cost to County	Cost to Connecting Links and Commissions	Cost to Cities (Sub. Area)
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	135,182 45	26,630 87	161,813 32	126,431 18	32,362 66		3,019 48
Bruce	227,243 17	16,941 97	244,185 14	195,348 12	48,837 02		
Carleton	130,311 74	56,551 40	186,863 14	123,006 07	37,372 63		26,484 44
Dufferin	310,459 52	18,319 48	328,779 00	263,023 21	65,755 79		
Dundas, Stormont and Glengarry	413,191 63	62,358 00	475,549 63	380,439 70	95,109 93		
Durham and Northumberland	312,424 22	49,078 79	361,503 01	289,202 41	72,300 60		
Elgin	202,638 85	15,693 41	218,332 26	166,727 95	43,666 45		7,937 86
Essex	525,540 09	36,431 10	561,971 19	445,428 52	112,394 24		4,148 43
Frontenac	491,972 39	41,343 26	533,315 65	417,819 96	106,663 13		8,832 56
Grey	772,303 51	47,145 88	819,449 39	653,083 93	163,889 88		2,475 58
Haldimand	59,429 01	18,732 38	78,161 39	62,529 11	15,632 28		
Halton	126,051 56	33,580 70	159,632 26	127,613 50	31,864 91	153 85	
Hastings	801,228 31	79,853 31	881,081 62	701,895 04	176,216 32		2,970 26
Huron	259,147 74	45,417 76	304,565 50	243,652 40	60,913 10		
Kent	238,425 07	29,068 74	267,493 81	213,073 69	53,498 76		921 36
Lambton	609,505 83	41,250 13	650,755 96	520,370 67	130,151 19		234 10
Lanark	183,413 46	27,924 25	211,337 71	169,070 17	42,267 54		
Leeds and Grenville	620,827 09	94,098 38	714,925 47	571,940 38	142,985 09		
Lennox and Addington	96,608 05	15,794 58	112,402 63	89,922 10	22,480 53		
Lincoln	76,540 87	36,717 55	113,258 42	88,664 99	22,651 68		1,941 75
Middlesex	495,830 03	41,202 66	537,032 69	376,883 28	107,406 53		52,742 88
Norfolk	1,269 08	16,458 83	17,727 91	14,182 33	3,545 58		
Ontario	207,420 93	54,973 81	262,394 74	209,915 79	52,478 95		
Oxford	49,061 33	19,667 89	68,729 22	52,338 90	13,745 84		2,644 48
Peel	393,056 08	50,321 29	443,377 37	354,599 24	88,264 88	513 25	
Perth	94,467 00	59,467 85	153,934 85	118,363 18	30,786 97		4,784 70
Peterborough	414,242 72	29,838 05	444,080 77	352,067 39	88,816 15		3,197 23
Prince Edward	22,996 96	28,567 92	51,564 88	41,251 91	10,312 97		
Renfrew	169,009 70	25,770 23	194,779 93	155,823 94	38,955 99		
Russell and Prescott	270,921 61	40,011 23	310,932 84	248,746 27	62,186 57		
Simcoe	768,197 22	95,487 63	863,684 85	690,947 88	172,736 97		
Victoria	121,868 87	30,619 58	152,488 45	121,990 76	30,497 69		
Waterloo	97,948 78	26,278 58	124,227 36	94,680 32	24,845 47		4,701 57

Welland	287,270 74	32,766 31	320,037 05	234,523 18	64,007 41	....	21,506 46
Wellington	63,931 34	44,278 71	108,210 05	81,608 59	21,642 00	....	4,959 46
Wentworth	576,965 27	52,148 58	629,113 85	450,054 69	125,689 71	332 65	53,036 80
York	362,674 41	61,704 91	424,379 32	148,815 00	84,627 90	373 99	190,562 43
	10,989,576 63	1,502,496 00	12,492,072 63	9,596,035 75	2,497,561 31	1,373 74	397,101 83
Burlington Beach	764 98	1,420 41	2,185 39	1,748 31	....	437 08	....
Indian Reserve (Hastings County)	4,955 09	1,162 21	6,117 30	4,893 84	....	1,223 46	....
Total	10,995,296 70	1,505,078 62	12,500,375 32	9,602,677 90	2,497,561 31	3,034 28	397,101 83

APPENDIX No. 3

EXPENDITURE ON PROVINCIAL SUBURBAN AREAS, 1934

City	Construction	Maintenance	Total	Part paid by City
	$ c.	$ c.	$ c.	$ c.
Belleville	9,960 51	4,890 79	14,851 30	2,970 26
Brantford	10,180 65	4,916 75	15,097 40	3,019 48
Chatham	2,287 19	2,319 59	4,606 78	921 36
Galt	7,492 99	2,434 02	9,927 01	1,985 40
Guelph	15,961 28	8,835 99	24,797 27	4,959 46
Hamilton	234,628 04	30,555 99	265,184 03	53,036 80
Kingston	38,905 76	5,257 07	44,162 83	8,832 56
Kitchener	5,989 23	7,591 62	13,580 85	2,716 17
London	254,406 55	9,307 88	263,714 43	52,742 88
Niagara Falls	81,711 08	2,721 52	84,432 60	16,886 52
Ottawa	111,368 36	21,053 83	132,422 19	26,484 44
Owen Sound	6,388 59	5,989 36	12,377 95	2,475 58
Peterborough	13,367 70	2,618 47	15,986 17	3,197 23
Sarnia	84 88	1,085 60	1,170 48	234 10
St. Catharines	71 89	9,636 86	9,708 75	1,941 75
St. Thomas	35,536 29	4,153 02	39,689 31	7,937 86
Stratford	17,095 43	6,828 12	23,923 55	4,784 70
Toronto	847,713 54	105,098 64	952,812 18	190,562 43
Welland	20,913 30	2,186 42	23,099 72	4,619 94
Windsor	16,151 20	4,590 98	20,742 18	4,148 43
Woodstock	10,324 58	2,897 84	13,222 42	2,644 48
	1,740,539 04	244,970 36	1,985,509 40	397,101 83

EXPENDITURE ON KING'S HIGHWAY CONNECTING LINKS, 1934

Town	Construction	Maintenance	Total	Proportion paid by Town
	$ c.	$ c.	$ c.	$ c.
Port Credit	1,199 64	853 35	2,052 99	513 25
Long Branch	....	983 69	983 69	245 92
Oakville	....	101 55	101 55	50 77
Burlington	29 87	176 31	206 18	103 09
Dundas	244 55	420 75	665 30	332 65
New Toronto	....	132 40	132 40	66 20
Mimico	....	123 73	123 73	61 86
	1,474 06	2,791 78	4,265 84	1,373 74

APPENDIX No. 4

SCHEDULE OF ASSUMPTIONS AND REVERSIONS OF SECTIONS OF THE KING'S HIGHWAY SYSTEM FOR THE YEAR 1934

During the year the system was extended by assuming 398.39 miles, less 5.25 miles reverted, making a total assumed of 3,409.13 miles. A list of the roads added to the system, together with mileage and date of designation, also list of roads and mileage reverted from the system, is as follows:

The King's Highways Assumed in 1934

County	Date of Designation	Municipality	Mileage	Total Mileage
Elgin	1st June, 1934	Yarmouth Township	1.2	1.20
Essex	11th July, 1934	Maidstone Township	8.0	
	11th July, 1934	Rochester Township	1.5	
	11th July, 1934	Sandwich E. Township	4.7	14.20
Frontenac	25th April, 1934	Hinchenbrooke Twp.	16.5	
	25th April, 1934	Kingston Township	9.0	
	25th April, 1934	Olden Township	1.9	
	25th April, 1934	Oso Township	3.8	
	25th April, 1934	Portland Township	14.0	
	4th July, 1934	Kingston Township	6.5	
	25th July, 1934	Wolfe Island Township	7.4	59.10
Glengarry	28th March, 1934	Alexandria Town	0.8	0.80
Grey	11th April, 1934	Artemesia Township	5.2	
	11th April, 1934	Glenelg Township	9.0	14.20
Haldimand	28th March, 1934	Cayuga Township	1.3	
	28th March, 1934	Seneca Township	6.3	7.60
Hastings	17th January, 1934	Marmora Village	0.45	
	4th April, 1934	Madoc Village	0.15	0.60
Halton	13th June, 1934	Trafalgar Township	1.4	1.40
Huron	4th April, 1934	Goderich Township	12.3	
	4th April, 1934	Hay Township	8.5	
	4th April, 1934	Stanley Township	8.3	
	4th April, 1934	Stephen Township	1.8	
	11th July, 1934	Usborne Township	3.7	34.60
Kent	28th March, 1934	Chatham Township	15.3	
	28th March, 1934	Dover East Township	6.9	22.20
Lambton	11th April, 1934	Plympton Township	3.8	
	11th April, 1934	Warwick Township	3.8	
	18th April, 1934	Bosanquet Township	14.7	
	18th April, 1934	Thedford Village	0.2	
	2nd May, 1934	Moore Township	10.5	
	2nd May, 1934	Sarnia Township	4.1	
	2nd May, 1934	Sombra Township	10.4	
	20th June, 1934	Forest Town	0.35	
	4th July, 1934	Courtwright Village	0.6	48.45
Lennox and Addington	11th July, 1934	Adolphustown Twp.	4.9	
	11th July, 1934	Ernestown Township	11.15	
	11th July, 1934	Fredericksburg S. Twp.	9.35	25.40
Middlesex	11th July, 1934	Biddulph Township	6.6	6.60
Northumberland	11th April, 1934	Murray Township	3.85	
	11th April, 1934	Seymour Township	8.0	11.85
Peel	17th January, 1934	Toronto Township	4.7	4.70
Perth	4th July, 1934	Easthope N. Township	4.8	
	4th July, 1934	Ellice Township	6.9	
	4th July, 1934	Mornington Township	13.1	
	11th July, 1934	Blanshard Township	3.7	
	11th July, 1934	Fullerton Township	8.6	37.10
Peterborough	28th March, 1934	Belmont Township	1.9	
	4th April, 1934	Douro Township	4.4	
	4th April, 1934	Smith Township	13.0	
	25th April, 1934	Havelock Village	0.6	19.90
Prince Edward	4th July, 1934	Ameliasburg Township	5.4	
	4th July, 1934	Hallowell Township	11.35	
	4th July, 1934	Hillier Township	9.0	
	4th July, 1934	Marysburg N. Township	1.35	27.10

The King's Highways Assumed in 1934—Continued

County	Date of Designation	Municipality	Mileage	Total Mileage
Simcoe	28th March, 1934	Essa Township	3.89	
	28th March, 1934	Gwillimbury Township	6.0	
	28th March, 1934	Innisfil Township	8.8	
	28th March, 1934	Tecumseh Township	6.8	25.49
Victoria	15th April, 1934	Fenelon Township	6.2	6.20
Waterloo	28th March, 1934	Waterloo Township	2.15	
	28th March, 1934	Woolwich Township	6.45	8.60
Welland	4th April, 1934	Wainfleet Township	6.2	
	20th June, 1934	Bertie Township	6.3	
	4th July, 1934	Fort Erie Village	0.3	12.80
Wentworth	28th March, 1934	Binbrook Township	7.5	7.50
York	30th May, 1934	King Township	0.8	0.80
Total				398.39

Reversions from January 1st, 1934, to December 31st, 1934

County	Municipality	Year	Mileage	Total Mileage
Carleton	Huntley Township	1934	0.30	
	Huntley Township	1934	0.20	0.50
Haldimand	Dunnville Town	1934	0.10	0.10
Hastings	Elziver Township	1934	3.10	
	Elziver Township	1934	0.80	3.90
Russell	Clarence Township	1934	0.75	0.75
Total				5.25

APPENDIX No. 5

GROWTH OF COUNTY ROAD EXPENDITURES AND PROVINCIAL GRANTS

Year work was done	Number of Counties	Expenditure	Government Grant
1903	4	$ 166,149 06	$ 55,383 02
1904	7	291,084 42	97,028 48
1905	7	179,593 62	59,864 53
1906	10	247,102 37	82,367 45
1907	14	383,518 86	127,839 62
1908	15	429,393 57	143,131 16
1909	16	440,374 08	146,791 36
1910	17	553,312 61	184,437 54
1911	19	712,072 52	237,357 50
1912	20	898,631 18	299,543 69
1913	20	847,684 15	282,561 35
1914	20	785,521 93	261,840 61
1915	20	811,540 05	270,513 34
1916	23	955,447 19	327,663 76
1917	32	1,388,341 87	483,621 32
1918	36	2,226,899 70	815,440 01
1919	37	5,714,937 19	2,623,719 24
1920	..	7,956,863 72	3,626,418 08
1921	..	11,078,288 39	5,119,882 26
1922	..	9,162,491 79	4,258,339 83
1923	..	7,403,509 96	3,418,523 07
1924	..	6,861,451 62	3,214,321 50
1925	..	6,608,431 04	3,222,678 10
1926	..	5,838,445 12	2,913,660 96
1927	..	7,424,464 85	3,706,719 88
1928	..	8,784,420 42	4,360,222 86
1929	..	9,212,758 04	4,591,110 16
1930	..	8,929,424 27	4,463,527 11
1931	..	7,265,350 65	3,625,860 66
1932	..	4,214,410 70	2,106,457 18
1933	..	3,058,622 91	1,529,228 37
1934	..	3,391,768 96	1,695,291 35
Totals to date	..	$124,222,307 81	$58,351,345 35

APPENDIX No. 6

COUNTY ROAD MILEAGE AND EXPENDITURE

From Inception of County Road Systems up to December 31st, 1934, Provincial Subsidies on 1934 Expenditure being Paid in 1935

County	Year of Establishment of System	Road Mileages			Total Approved Expenditure to end of 1934	Total Government Grant
		County Roads	County Suburban Roads	Total		
Brant	1917	63.6	28.9	92.5	$2,314,897 64	$1,149 214 68
Bruce	1917	294.7	....	294.7	3,014,232 27	1,497,095 40
Carleton	1909	153.9	104.3	258.2	6,529,566 81	3,057,705 71
Dufferin	1918	138.0	....	138.0	1,305,849 12	616,257 68
Elgin	1917	221.4	14.3	235.7	2,349,170 50	1,098,870 88
Essex	1916	211.8	38.0	249.8	5,959,384 83	2,924,080 69
Frontenac	1906	96.8	30.7	127.5	1,468.832 19	668,407 09
Grey	1918	165.3	43.5	208.8	3,211,518 92	1,582,882 61
Haldimand	1911	152.5	....	152.5	2,401,220 25	1,099,269 72
Halton	1907	124.5	....	124.5	2,159,771 02	983,940 11
Hastings	1904	310.8	....	310.8	3,248,460 71	1,497,089 79
Huron	1917	343.9	....	343.9	2,608,123 36	1,240,796 43
Kent	1917	241.9	10.2	252.1	4,208,087 12	2,100,375 31
Lambton	1918	228.9	12.0	240.9	2,542,419 26	1,222,212 04
Lanark	1903	237.8	7.2	245.0	2,700,660 51	1,272,416 51
Leeds and Grenville	1910	267.1	5.5	272.6	3,539,208 29	1,622,896 81
Lennox and Addington	1906	106.6	....	106.6	2,579,548 82	1,244,450 11
Lincoln	1904	123.8	12.3	136.1	4,010,121 05	1,741,873 68
Middlesex	1906	372.9	35.2	408.1	4,085,928 48	1,858,654 07
Norfolk	1917	210.3	....	210.3	3,001,498 02	1,415,075 82
Northumberland and Durham	1918	244.5	....	244.5	3,054,472 90	1,498,950 73
Ontario	1918	191.7	13.5	205.2	1,893,951 20	913,341 56
Oxford	1904-7	191.1	3.9	195.0	2,784,159 37	1,219,381 41
Peel	1906	147.1	....	147.1	2,465,342 26	1,094,553 22
Perth	1907	174.1	....	174.1	1,625,389 88	727,735 06
Peterborough	1919	99.7	26.0	125.7	984,158 62	467,438 94
Prescott and Russell	1917	192.1	....	192.1	4,184,066 42	1,864,587 14
Prince Edward	1907	147.2	....	147.2	1,944,237 07	883,140 72
Renfrew	1918	219.1	....	219.1	3,090,888 32	1,501,648 28
Simcoe	1903	268.4	....	268.4	3,882,168 03	1,785,861 35
Stormont, Dundas and Glengarry	1917	331.0	....	331.0	5,213,753 95	2,533,354 86
Victoria	1917	173.3	....	173.3	2,406.101 78	1,192,065 14
Waterloo	1908	148.0	13.1	161.1	3,592,344 85	1,749,573 53
Welland	1912	100.6	17.4	118.0	4,607,137 31	2,124,216 88
Wellington	1903	297.4	13.0	310.4	3,503,654 73	1,625,228 04
Wentworth	1902	88.0	61.0	149.0	3,916,392 73	1,773.560 52
York	1911	43.0	256.5	299.5	11,835,589 22	5,503,142 83
Totals	....	7,122.8	746.5	7,869.3	$124,222,307 81	$58,351,345 35

APPENDIX

SUMMARY

Statement of Work and

Name of County	Work Done: Gravel or Stone	Surface-Treated Gravel or Stone	Low-Cost Bituminous Surfaces	Mixed Macadam and Asphaltic Concrete	Cement Concrete	New Bridges	Pipe and Tile Culverts	Steel Arch and Concrete Culverts		Roads and Culverts $	c.
Brant	2.00		9.18				4		Rel.	5,240	46
									Ord.	37,271	26
Bruce	4.75		6.40			2	24	1	Rel.	14,162	64
									Ord.	26,416	76
Carleton	7.05		1.20	0.20		18		1	Rel.	29,573	23
									Ord.	18,235	28
Dufferin	13.80					3	13		Rel.	3,688	71
									Ord.	63	69
Elgin	0.64						4	1	Rel.		
									Ord.	16,625	15
Essex			1.30			1	6		Ord.	7,302	49
Frontenac				2.35			16		Rel.	17,426	84
									Ord.		
Grey	2.00		6.25			2	16	1	Rel.	18,204	38
									Ord.	14,091	71
Haldimand	3.90	0.90				1	5	3	Rel.	25,235	52
									Ord.	666	88
Halton	3.00	0.40	1.85				6	1	Rel.	15,785	60
									Ord.		
Hastings	7.40					2	37	2	Rel.	16,065	12
									Ord.	1,921	38
Huron	15.00							1	Rel.	36,001	66
									Ord.	805	35
Kent	7.60		2.83	0.75			38	1	Rel.	6,447	34
									Ord.	24,224	59
Lambton	8.20		2.10			1	18	4	Ord.	17,767	26
Lanark	8.80						2		Rel.	13,028	88
									Ord.		
Leeds and Grenville			1.50	1.00		1	11	3	Rel.	3,126	25
									Ord.	20,070	29
Lennox and Addington							12		Rel.		
									Ord.	202	75
Lincoln	5.85		0.25		0.13		10	1	Rel.	28,113	56
									Ord.		
Middlesex	3.25				3.0	1	5		Rel.	53,795	27
									Ord.	452	90
Norfolk	5.00	15.82					5	3	Ord.	17,996	87
Northumberland and Durham	4.50		1.20			2	31	3	Rel.	15,812	12
									Ord.	529	77
Ontario	11.00		2.60			5	71	2	Rel.	49,744	92
									Ord.	51,549	20
Oxford	1.40	2.10							Ord.	3,838	54
Peel			0.62	0.23			17	1	Rel.	1,229	54
									Ord.	8,891	14
Perth	4.50						6		Rel.	4,799	67
									Ord.	1,207	85
Peterborough	9.25		2.20			1	31	1	Rel.	5,952	10
									Ord.	6,253	06
Prescott and Russell							4	2	Rel.		
									Ord.	2,237	85
Prince Edward						2	10		Rel.		
									Ord.		
Renfrew						1	1	3	Rel.	924	76
									Ord.		
Simcoe	5.10		0.75			2	7		Rel.	8,288	46
									Ord	20,293	31
Stormont, Dundas & Glengarry	1.50		8.75			1	6		Rel.	20,202	65
									Ord.	1,781	55
Victoria	4.40		0.70			3	20		Rel.	13,166	07
									Ord.	1,159	22
Waterloo	29.85		16.00			4	158	4	Rel.	58,612	23
									Ord.	69,575	58
Welland							3		Rel.	418	53
									Ord.	4,668	10
Wellington	10.15		2.70				18	1	Rel.	26,536	05
									Ord.		
Wentworth	17.75	2.75	4.00				21		Rel.	25,722	29
									Ord.	35,368	24
York—Interim				1.68					Ord.	52,424	85
York—Main	8.84			5.89		3	155	1	Rel.	159,966	52
									Ord.	44,254	10
RELIEF TOTALS										677,271	37
ORDINARY TOTALS										508,146	97
GRAND TOTALS	206.49	21.97	72.38	12.10	3.13	56	636	41		1,185,418	34

No. 7

1934

Expenditure on County Roads

Approved Expenditure									Two-thirds Relief Labour Deducted from Construction and Maintenance
Bridges	Machinery and Repairs	Urban Improvement	Purchase of Gravel Pits	Superintendence	Total Construction	Maintenance	Total Approved Expenditure	Subsidy 50%	
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
					5,240 46	1,522 69	6,763 15	32,724 42	12,537 82
	8,907 89			4,486 29	50,665 44	8,020 26	58,685 70		
17,537 03		3,033 19			34,732 86	2,773 05	37,505 91	70,276 14	10,957 58
	13,051 43	10,193 63		4,108 01	53,769 83	49,276 55	103,046 38		
					29,573 23	14,816 08	44,389 31	51,001 07	24,499 19
	7,703 81			8,637 74	34,576 83	23,036 00	57,612 83		
3,944 33					7,633 04	16,574 59	24,207 63	15,069 32	7,016 10
	250 83			3,427 94	3,742 46	2,188 55	5,931 01		
1,420 39					1,420 39	5,698 67	7,119 06	26,443 95	7,482 84
4,618 52	5,322 72	1,009 90		3,152 50	30,728 79	15,040 06	45,768 85		
12,049 30	6,727 49		1,000 00	3,345 49	30,424 77	61,411 62	91,836 39	45.918 20	
					17,426 84	21,474 00	38,900 84	24,049 30	25.676 84
	6,062 45			3,135 31	9,197 76		9,197 76		
1,646 47		1,126 56			20,977 41	30,714 96	51,692 37	44,092 94	30,185 06
594 02	7,305 74	421 48		4,982 04	27,394 99	9,098 52	36,493 51		
7,708 35					32,943 87	2,925 87	35,869 74	40,398 83	19,503 04
	4,499 47			4,186 04	9,352 39	35,575 53	44,927 92		
648 33					16,433 93	17,179 59	33,613 52	26,094 96	12,132 15
	5,506 21			2,807 97	8,314 18	10,262 23	18,576 41		
					16,065 12	16,130 08	32,195 20	26,738 89	31,448 12
	4,138 88			2,912 54	8,972 80	12,309 78	21,282 58		
					36,001 66	33,307 73	69,309 39	48,421 66	31,633 00
	11,321 42		1,303 30	4,389 76	17,819 83	9,714 11	27,533 94		
737 30					7,184 64		7,184 64	62,942 16	5,136 24
5,676 92	7,286 97	6,621 50	550 00	4,537 17	48,897 15	69,802 54	118,699 69		
1,202 55	3,492 02			3,301 05	25,762 88	38,944 65	64,707 53	32,353 77	
					13,028 88		13,028 88	27,070 20	11,677 58
	9,168 33			3,787 56	12,955 89	28,155 63	41,111 52		
		51 66			3,177 91	7,001 36	10,179 27	21,895 89	10,516 28
880 50	117 95			4,119 35	25,188 09	8,424 42	33,612 51		
						3,222 64	3,222 64	13,799 87	6,445 26
	1,170 57			2,565 65	3,938 97	20,438 13	24,377 10		
					28,113 56	49,713 92	77,827 48	48,351 58	19,634 65
	5,971 68			4,577 27	10,548 95	8,326 73	18,875 68		
14,992 26					68,787 53	33,233 90	102,021 43	65,585 12	19,548 87
7,306 66	11,237 09			4,102 88	23,099 53	6,049 27	29,148 80		
	10,248 97	12,720 43		4,669 20	45,635 47	110,142 59	155,778 06	77,889 03	
2,471 74	82 24				18,366 10	9,536 42	27,902 52	19,551 80	15,584 84
800 00	4,154 63			2,957 37	8,441 77	2,759 32	11,201 09		
9,357 98	281 25				59,384 15	22,677 07	82,061 22	78,338 90	41,525 08
	6,011 47	2,636 62		5,355 89	65,553 18	9,063 41	74,616 59		
4,409 09	4,135 31			3,959 91	16,342 85	45,056 06	61,398 91	30,699 46	
					1,229 54	2,595 80	3,825 34	20,027 52	4,278 39
788 27	1,949 97			3,160 77	14,790 15	21,439 56	36,229 71		
					4,799 67		4,799 67	21,485 18	5,666 66
2,795 17	1,575 27			2,963 13	8,541 42	29,629 26	38,170 68		
874 25					6,826 35	2,701 86	9,528 21	22,545 05	18,046 04
5,359 97	4,285 71			2,736 53	18,635 27	16,926 62	35,561 89		
						48,005 47	48,005 47	27,741 67	9,278 52
				3,963 16	6,201 01	1,276 86	7,477 87		
243 43					243 43	8,326 39	8,569 82	19,296 45	10,646 42
2,005 23	1,792 99		12 50	2,069 07	5,879 79	24,143 30	30,023 09		
					924 76	17,892 54	18,817 30	16,451 85	6,581 60
2,003 60	729 45			4,811 70	7,544 75	6,541 65	14,086 40		
					8,288 46	31,236 81	39,525 27	51,699 72	24,133 55
5,555 08	1,311 90	11,320 33		3,639 78	42,120 40	22,109 80	64,230 20		
4,640 72					24,843 37	18,916 58	43,759 95	52,108 42	34,975 07
	654 00			4,318 90	6,754 45	53,702 44	60,456 89		
					13,166 07	18,718 86	31,884 93	34,460 47	22,776 67
3,506 27	4,131 98	19,306 58		4,135 87	32,239 92	4,796 10	37,036 02		
90,672 65					149,284 88	22,934 03	172,218 91	147,594 84	56,732 80
84 03	8,590 55			6,254 20	84,504 36	38,466 43	122,970 79		
					418 53	3,437 50	3,856 03	23,756 86	6,862 04
	925 34	5,964 52		3,717 55	15,275 51	28,382 18	43,657 69		
1,748 87					28,284 92		28,284 92	44,297 42	11,453 99
	1,985 11			3,553 72	5,538 83	54,771 09	60,309 92		
					25,722 29		25,722 29	68,960 63	25,024 96
	5,841 46			6,174 89	47,384 59	64,814 39	112,198 98		
					52,424 85		52,424 85	26,212 42	
4,982 70					164,949 22	263 52	165,212 74	188,945 39	34,992 11
2,830 86	9,377 76	10,651 57		9,066 11	76,180 40	137,327 77	213,508 17		
163,626 80	363 49	4,211 41			845,473 07	463,531 98	1,309,005 05		
62,466 04	186,944 82	80,846 56	2,865 80	154,070 31	995,340 50	1,087,423 41	2,082,763 91		
226,092 84	187.308 31	85,057 97	2,865 80	154,070 31	1,840,813 57	1,550,955 39	3,391,768 96	1,695.291 35	614,589 36

APPENDIX

SUMMARY

Schedule of Expenditure on Maintenance

Name of County	Brushing and Weed Cutting	Ditching	Grading	Dragging	Culverts (Repairs only)	Bridges (Repairs only)
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	1,024 89	533 60	....	1,955 75	98 65	....
Bruce	2,260 38	851 10	1,255 46	8,754 82	325 14	2,045 73
Carleton	3,624 56	418 24	2,225 88	3,906 54	1,334 92	729 06
Dufferin	970 06	219 22	452 57	4,754 99	91 30	21 82
Elgin	1,501 05	825 40	3,755 53	4,497 28	269 00	536 15
Essex	2,900 15	837 11	404 32	9,349 20	136 84	474 89
Frontenac	1,249 80	1,201 15	11,433 60	316 38	721 46	45 75
Grey	3,780 24	1,805 84	802 34	3,948 42	88 60	148 25
Haldimand	1,424 65	846 20	169 35	2,645 69	1,006 20	1,018 11
Halton	691 95	1,173 91	1,355 03	4,256 41	785 33	87 26
Hastings	1,450 21	....	8,924 19	3,902 34	1,969 75	366 93
Huron	3,287 73	2,249 25	1,035 82	9,382 38	573 80	1,726 97
Kent	3,237 10	1,039 21	2,372 01	16,279 23	526 61	3,122 39
Lambton	2,771 89	2,510 00	647 78	11,079 62	675 32	283 97
Lanark	2,332 74	1,059 90	665 20	3,469 44	3,314 06	4,329 94
Leeds and Grenville	1,642 05	45 00	463 80	1,927 72	608 80	688 18
Lennox and Addington	250 65	36 87	274 95	16 00	633 82	272 64
Lincoln	2,283 23	656 69	104 55	200 15	328 67	333 52
Middlesex	2,705 93	1,664 45	1,852 98	8,000 65	910 63	3,156 10
Norfolk	3,015 99	481 60	3,025 43	3,731 72	722 95	1,043 95
Northumberland and Durham	4,386 17	375 46	2,399 22	3,170 32	466 82	2,611 69
Ontario	1,925 16	773 63	948 67	4,794 01	420 10	470 65
Oxford	2,763 02	634 53	564 34	7,204 67	897 93	3,565 82
Peel	958 34	440 24	633 89	3,058 18	244 66	555 46
Perth	1,374 08	314 07	824 16	5,323 08	198 95	99 34
Peterborough	728 42	84 30	143 91	4,251 35	381 36	47 95
Prescott and Russell	2,095 75	1,036 70	1,452 26	488 90	437 17	229 44
Prince Edward	1,184 80	816 75	9,430 71	7 20	2,829 57	816 78
Renfrew	924 06	....	2,858 94	1,013 77	885 89	105 62
Simcoe	2,712 15	3,855 64	20,805 97	10,847 33	874 62	*1,699 71 321 97
Stormont, Dundas and Glengarry	2,488 97	690 55	4,281 13	....	1,402 64	1,136 84
Victoria	3,117 17	1,768 84	277 55	6,255 51	190 45	701 85
Waterloo	927 21	1,026 19	925 74	5,475 95	260 39	878 71
Welland	3,000 64	863 01	379 80	2 40	655 78	67 90
Wellington	2,746 43	1,413 20	2,541 49	9,185 31	1,759 62	1,741 28
Wentworth	2,899 90	4,495 23	4,463 40	3,418 65	428 37	231 66
York	9,426 25	7,589 29	7,402 01	4,713 52	75 03	*263 52 354 40
Totals	86,063 77	44,632 37	101,553 98	171,584 87	27,531 20	36,332 20

*County Bridges at 40%.

No. 8

1934

and Repairs on County Roads

Re-surfacing	Oiling, etc.	Snow Roads	Wire Fence Bonus and Guard Rails	Urban Improvement	Deduct Two-thirds Labor Costs	Total Subsidisable Expenditure	Subsidy, 50%
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
4,299 81	260 87	734 61	1,543 92	2,136 21	*3,045 36*	9,542 95	4,771 48
21,875 58	3,247 53	6,908 91	....	6,286 45	*1,761 50*	52,049 60	26,024 81
19,235 65	3,276 52	11,023 06	1,082 49	925 57	*9,930 41*	37,852 08	18,926 04
13,106 46	1,545 20	1,152 50	29 21	1,470 01	*5,050 20*	18,763 14	9,381 56
6,179 08	3,763 42	936 05	3,117 85	....	*4,642 08*	20,738 73	10,369 36
27,370 13	7,798 77	107 85	176 34	11,856 02	....	61,411 62	30,705 81
14,881 92	4,681 93	4,043 24	85 35	....	*17,186 58*	21,474 00	10,737 00
19,699 63	3,975 85	4,012 17	....	1,552 14	....	39,813 48	19,906 74
6,154 45	23,255 00	797 52	337 33	3,395 00	*2,548 10*	38,501 40	19,250 70
15,490 95	210 15	1,409 35	262 57	5,765 02	*4,046 11*	27,441 82	13,720 91
17,230 58	4,295 63	4,045 20	....	....	*13,744 97*	28,439 86	14,219 93
19,777 73	10,676 08	3,986 48	387 98	....	*10,062 38*	43,021 84	21,510 92
37,488 66	....	281 13	623 36	4,832 84	....	69,802 54	34,901 27
15,800 58	2,131 83	1,839 25	265 80	938 61	....	38,944 65	19,472 33
9,835 38	....	1,414 83	....	1,734 14	....	28,155 63	14,077 82
12,607 50	2,686 68	314 94	222 68	279 39	*6,060 96*	15,425 78	7,712 88
16,394 28	10,153 71	1,312 62	....	760 49	*6,445 26*	23,660 77	11,830 39
29,815 31	23,174 87	2,389 95	780 47	2,437 07	*4,463 83*	58,040 65	29,020 32
25,253 56	2,333 58	2,116 85	....	1,176 92	*9,888 48*	39,283 17	19,641 59
95,488 53	1,010 33	824 88	797 21	....	....	110,142 59	55,071 30
1,295 03	....	2,899 99	346 83	....	*5,655 79*	12,295 74	6,147 87
21,831 83	5,137 77	4,487 97	369 35	....	*9,418 66*	31,740 48	15,870 24
21,574 36	2,668 21	2,778 79	814 03	1,590 36	....	45,056 06	22,528 03
14,829 87	2,457 04	2,548 95	1,072 68	....	*2,763 95*	24,035 36	12,017 67
16,819 44	1,256 50	2,531 13	491 79	396 72	....	29,629 26	14,814 63
15,183 38	580 34	2,598 13	....	1,033 07	*5,403 73*	19,628 48	9,814 24
21,952 59	27,671 27	1,919 91	....	1,276 86	*9,278 52*	49,282 33	24,641 17
17,002 08	4,855 09	2,980 30	1,168 23	1,537 75	*10,159 57*	32,469 69	16,234 85
9,365 24	9,562 76	2,153 39	65 88	3,675 71	*6,177 07*	24,434 19	12,217 09
26,668 49	....	5,933 65	186 00	....	*20,558 92*	*1,699 71 51,646 90	679 89 25,823 45
36,415 52	18,301 08	2,059 08	....	5,843 20	....	72,619 02	36,309 51
22,802 21	1,550 66	1,162 95	432 32	....	*14,744 53*	23,514 96	11,757 49
14,293 11	5,334 87	3,750 55	1,963 69	34,698 49	*8,134 44*	61,400 46	30,700 22
4,093 99	26,196 08	2,476 41	....	162 16	*6,078 49*	31,819 68	15,909 84
12,712 04	7,440 16	6,936 35	894 36	7,400 85	....	54,771 09	27,385 55
24,452 58	18,570 58	4,014 58	....	1,839 44	....	64,814 39	32,407 20
79,451 94	8,060 29	20,255 04	....	....	....	263 52 137,327 77	131 76 68,663 89
788,729 47	248,120 65	121,138 56	17,517 72	105,000 49	*197,249 89*	1,550,955 39	775,307 75

APPENDIX

Summary of Expenditure

The following schedule shows in detail the work and approved expenditure on Township

Year	No. of Twps.	General Expenditure									
		Roads and Culverts		Bridges		Maintenance		Machinery		Purchase of Gravel Pits	
		$	c.	$	c.	$	c.	$	c.	$	c.
1920.......	172	432,618	62	270,596	52	828,027	27	91,704	24	8,513	47
1921.......	294	844,829	42	501,650	14	1,888,048	75	142,316	18	12,420	81
1922.......	312	774,336	84	374,158	51	1,832,200	75	87,936	37	23,573	06
1923.......	315	665,101	32	420,451	17	1,720,273	23	82,020	62	30,453	57
1924.......	320	725,631	40	334,348	63	1,861,036	56	95,758	21	12,727	08
1925.......	272	930,129	31	249,633	82	1,720,775	30	121,874	98	7,886	11
1926.......	295	1,379,063	62	282,968	54	2,154,503	96	188,804	36	33,251	25
1927.......	307	1,820,991	31	322,023	33	2,583,130	89	226,160	80	23,918	64
1928.......	324	2,153,376	26	259,421	34	2,690,025	09	272,743	58	17,539	10
1929.......	337	2,275,479	10	695,807	95	2,933,846	90	278,527	99	32,756	55
1930.......	342	2,295,855	44	369,015	98	2,684,547	12	241,648	16	35,279	17
1931.......	344	1,067,834	87	190,836	16	2,617,986	13	172,126	25	10,386	87
1932.......	343	608,807	25	94,891	52	2,085,775	69	115,493	81	6,952	47
1933.......	338	489,075	48	152,183	25	1,561,755	24	75,040	23	9,485	80
1934.......	338	677,704	62	119,942	38	1,779,747	04	131,696	10	9,389	14
Totals..	.....	17,140,834	86	4,637,929	24	30,941,679	92	2,323,851	88	274,533	09

No. 9

on Township Roads

Roads to the end of 1934, under the provisions of The Highway Improvement Act.

		Superintendence		Total Approved Expenditure	Total Government Grant
Approved Expenditure	Government Grant	Approved Expenditure	Government Grant		
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,631,460 12	326,291 95	36,703 60	14,681 43	1,668,163 72	340,973 38
3,389,265 30	677,852 90	76,585 03	30,634 01	3,465,850 33	708,486 91
3,092,205 53	618,440 93	77,901 44	31,160 55	3,170,106 97	649,601 47
2,918,299 91	583,659 65	75,945 51	30,378 23	2,994,245 42	614,037 88
3,029,501 88	605,900 35	82,599 41	33,039 76	3,112,101 29	638,940 11
3,030,299 52	906,559 91	164,146 58	82,073 38	3,194,446 10	988,633 29
4,038,591 73	1,219,741 01	194,317 68	97,405 16	4,232,909 41	1,317,146 17
4,976,224 97	1,504,718 50	228,349 52	114,451 24	5,204,574 49	1,619,169 74
5,393,105 37	1,673,180 47	258,554 60	129,460 17	5,651,659 97	1,802,640 64
6,216,418 49	1,960,756 75	288,782 35	144,984 66	6,505,200 84	2,105,741 41
5,626,345 87	2,304,954 18	291,311 41	146,379 92	5,917,657 28	2,451,334 10
4,059,170 28	1,675,101 43	259,146 92	130,557 08	4,318,317 20	1,805,658 51
2,911,920 74	1,201,805 37	225,323 85	113,220 18	3,137,244 59	1,315,025 55
2,287,540 00	889,428 05	195,833 91	98,913 04	2,483,373 91	988,342 09
2,718,479 28	1,120,669 41	216,326 71	108,853 90	2,934,805 99	1,229,523 31
55,318,828 99	17,269,061 85	2,671,828 52	1,306,192 71	57,990,661 51	18,575,254 56

APPENDIX No. 11

SUMMARY OF 1934 COUNTY LEVIES ON BASIS OF EQUALIZED ASSESSMENT

Name of County	Equalized Assessment		Roads and Bridges					Other Purposes			Total Levy
			The King's Highways		County Roads and Bridges		Total	Educational	Miscellaneous	Totals	
	Total	Per Acre	Current	Debentures	Current	Debentures					
	$	$	Mills	Mills	Mills	Mills	Mills	Mills	Mills	Mills	Mills
Brant	19,826,800	92	0.76	1.10	1.19	1.45	4.50	1.81	1.94	3.75	8.25
Bruce	28,639,030	30	0.11	....	2.50	0.07	2.68	2.23	3.34	5.57	8.25
Carleton	28,462,805	50	0.14	2.90	0.65	6.00	9.69	2.62	5.53	8.15	17.84
Dufferin	13,364,550	37	0.19	1.76	1.40	....	3.35	1.76	2.64	4.40	7.75
Elgin	30,370,345	69	0.36	....	0.98	....	1.34	1.95	1.96	3.91	5.25
Essex	65,880,000	153	0.55	....	1.00	0.68	2.23	1.76	2.51	4.27	6.50
Frontenac	7,246,850	11	....	4.88	3.50	....	8.38	4.45	8.11	12.56	20.94
Grey	34,850,000	32	0.75	0.61	1.00	0.70	3.06	2.13	2.31	4.44	7.50
Haldimand	11,920,410	42	....	2.87	3.50	1.67	8.04	4.03	5.93	9.96	18.00
Halton	31,913,780	140	0.13	0.67	0.70	1.34	2.84	2.00	1.76	3.76	6.60
Hastings	18,354,800	17	2.00	....	2.00	0.76	4.76	3.22	7.02	10.24	15.00
Huron	44,271,175	55	0.34	0.26	1.20	....	1.80	1.40	2.80	4.20	6.00
Kent	39,897,117	70	1.41	....	2.04	....	3.45	2.00	2.00	4.00	7.45
Lambton	31,126,000	46	0.13	....	0.96	....	1.09	2.57	1.99	4.56	5.65
Lanark	15,000,000	22	0.21	2.20	1.00	5.30	8.71	2.60	3.07	5.67	14.38
Leeds and Grenville	17,672,000	25	2.94	1.61	3.50	2.96	11.01	4.00	3.41	7.41	18.42
Lennox and Addington	9,637,295	21	0.15	1.25	1.50	5.38	8.28	2.38	9.34	11.72	20.00
Lincoln	19,629,110	102	0.23	0.91	1.11	6.68	8.93	3.74	6.18	9.92	18.85
Middlesex	51,045,045	67	0.25	1.56	0.90	0.49	3.20	2.22	2.88	5.10	8.30
Norfolk	28,498,200	72	0.65	0.55	2.37	2.84	6.41	0.57	3.50	4.07	10.48
Northumberland and Durham	35,963,000	44	0.17	0.93	0.61	1.51	3.22	3.33	3.48	6.81	10.03
Ontario	24,493,548	48	0.23	2.01	2.40	0.69	5.33	2.65	3.41	6.06	11.39
Oxford	28,632,200	60	1.22	....	1.05	0.78	3.05	1.50	2.00	3.50	6.55
Peel	19,967,000	67	0.21	2.76	1.00	1.87	5.84	3.53	2.72	6.25	12.09
Perth	35,107,419	67	0.35	....	0.71	....	1.06	1.22	1.22	2.44	3.50
Peterborough	10,094,318	18	1.57	0.84	2.11	....	4.52	2.31	5.96	8.27	12.79
Prescott and Russell	20,555,591	37	....	....	2.00	7.44	9.44	1.79	6.12	7.91	17.35
Prince Edward	15,000,000	63	0.04	0.41	1.50	1.01	2.96	1.77	2.27	4.04	7.00
Renfrew	28,460,230	28	0.15	1.26	0.14	4.11	5.66	2.50	5.09	7.59	13.25

Simcoe	59,670,000	61	1.20	....	0.80	....	2.00	1.60	3.40	5.00	7.00
Stormont, Dundas and Glengarry	39,933,768	51	0.91	0.82	1.32	1.20	4.25	2.67	3.18	5.85	10.10
Victoria	22,408,990	37	0.45	0.62	1.99	0.64	3.70	1.21	2.99	4.20	7.90
Waterloo	38,315,000	122	0.05	....	2.00	0.29	2.34	1.61	3.93	5.54	7.88
Welland	43,078,872	190	0.18	....	0.88	0.74	1.80	2.60	3.10	5.70	7.50
Wellington	35,425,709	56	1.14	....	1.50	....	2.64	1.58	2.28	3.86	6.50
Wentworth	29,555,912	110	0.37	3.28	1.76	0.05	5.46	2.28	2.91	5.19	10.65
York	124,446,842	228	0.33	0.69	1.19	0.42	2.63	3.43	3.44	6.87	9.50

Report of Motor Vehicles Branch, 1934

To the Honourable T. B. McQuesten,
Minister of Highways.

Sir:—I have the honour to submit herewith the Annual Report of the Motor Vehicles Branch for the year 1934. Appended are the following:

(a) A detailed statement of the motor vehicle registrations for the calendar year 1934.

(b) A statement, duly verified by the Provincial Auditor, showing the revenue derived from all sources during the fiscal year ending October 31st, 1934.

(c) Complete data, showing in detail the operations of the Financial Responsibility and Accident Reporting Divisions during the calendar year 1934.

Registrations

For the first year since 1931, the number of motor vehicles registered showed an increase over the total of the previous year, an increase of noteworthy proportions which very nearly wiped out the decreases recorded during 1933 and 1932, and brought the total very close to the record of 1930 and 1931.

The number of passenger cars registered was 470,617, or 17,303 greater than the total for 1933, while registrations of commercial vehicles mounted to 64,436, a figure surpassing the 1931 high record. Motorcycles also increased in popularity, and their numbers reached 4,468, an aggregate which had not been exceeded since 1922, while the registration of trailers was 19,871, a new high record for this type of vehicle. The total number of vehicles of all types registered was 562,116, about five per cent greater than the total for the year 1933.

Drivers' Licenses

The number of drivers' licenses issued during this year was over 40,000 greater than during 1933, and approximately 25,000 greater than in any previous year.

Operators' licenses issued during the year totalled 483,794; instruction permits, 69,638; and chauffeurs' licenses, 181,949; or, altogether, 735,381 licenses to drive vehicles were taken out. In other words, for every 100 motor vehicles registered there were 130 drivers' licenses issued.

Revenue

The net revenue of the Branch for the fiscal year amounted to $8,049,714.00, an increase of 8.5% over the total for the preceding year of $7,421,159.84.

Eastern Conference of Motor Vehicle Administrators

The Registrar of Motor Vehicles represented the Province of Ontario at meetings of this organization, held in May and in October. At the October meeting he was elevated to the Presidency of the Conference.

Public Commercial Vehicles and Public Vehicles

In 1934, licenses were issued for the operation of 4,086 public commercial vehicles and 513 public vehicles owned by 2,027 operators.

Class of License	No. of Vehicles	No. of Operators
Public Vehicle (Bus)	513	85
Public Commercial Vehicle—A	1,517	226
B	146	118
C	737	350
D	358	128
E	1,328	1,120

The gross revenue collected by these Divisions during the fiscal year totalled $202,385.24.

Financial Responsibility Division

After four full years of operation the effectiveness of the work of this Division is becoming increasingly evident. The accompanying report indicates that since the inauguration of the Financial Responsibility Law the Division has dealt with approximately 17,000 suspension cases, and that at the end of 1934 there were in effect over 4,200 suspensions.

Drivers' records are also compiled here, and at the end of the year there were on file records of over 150,000 drivers against whom certificate of conviction, report of accident, suspension order or complaint had been registered.

Accident Reporting and Highway Safety Division

This Division came into existence at the same time as the Financial Responsibility Division, and receives and analyses reports of accidents, compiles statistics, prepares publicity, and assists in the compilation of drivers' records. During 1934, reports of 9,645 accidents, involving 14,204 vehicles and 13,731 drivers, were received. The accidents reported resulted in the loss of 512 lives, injury to 8,990 persons, and property damage estimated at $942,722.00. A review of the information contained in these reports is appended.

In promoting the cause of highway safety, the Division prepared approximately twenty-five bulletins, provided a series of radio addresses, which were delivered from various stations throughout the Province, and also conducted an advertising campaign, using newspapers and billboards. At the end of the year, plans were completed for the co-operation of a committee representing all the service clubs of the Province in a campaign to be carried on by these clubs through their local organizations. The plan included the preparation of a striking pamphlet for distribution to all applicants for drivers' licenses.

The review of Municipal Traffic By-laws, forwarded for Departmental approval, is also a part of the work of this Division. These by-laws are analysed with a view to maintaining reasonable uniformity in local regulations, and to insure safety and freedom from needless restriction in the operation of vehicles.

All of which is respectfully submitted,

J. P. Bickell,
Registrar of Motor Vehicles.

Toronto, November 18th, 1935.

MOTOR VEHICLE REGISTRATIONS, 1934

Automobile permits	470,617
Commercial permits	64,436
Convertible permits	2,724
Trailer permits	19,871
Motorcycle permits	4,468
Automobile dealers' permits	1,118
Commercial dealers' permits	68
Motorcycle dealers' permits	9
Operators	482,933
Instruction permits	69,638
Motorcycle operators	861
Chauffeurs	181,949
In transits	16,742
Transfers	66,605
Public vehicles	513
Public commercial vehicles	4,086

PASSENGER CARS REGISTERED, 1934

Counties		Cities		Total
Algoma	2,352	Sault Ste. Marie	2,379	4,731
Brant	3,132	Brantford	3,926	7,058
Bruce	7,215			7,215
Carleton	4,817	Ottawa	16,258	21,075
Dufferin	2,514			2,514
Dundas	2,381			2,381
Durham	4,004			4,004
Elgin	4,722	St. Thomas	2,473	7,195
Essex	12,981	Windsor	8,680	21,661
Frontenac	2,875	Kingston	3,378	6,253
Glengarry	1,997			1,997
Grenville	2,404			2,404
Grey	6,265	Owen Sound	1,709	7,974
Haldimand	4,411			4,411
Haliburton	536			536
Halton	4,775			4,775
Hastings	6,992	Belleville	2,169	9,161
Huron	7,305			7,305
Kenora	1,319			1,319

PASSENGER CARS REGISTERED, 1934—*Continued*

Counties		Cities		Total
Kent	8,110	Chatham	2,818	10,928
Lambton	6,483	Sarnia	3,046	9,529
Lanark	4,598			4,598
Leeds	4,967			4,967
Lennox and Addington	2,825			2,825
Lincoln	4,367	St. Catharines	3,775	8,142
Manitoulin	964			964
Middlesex	8,503	London	12,163	20,666
Muskoka	2,544			2,544
Nipissing	2,344	North Bay	1,581	3,925
Norfolk	5,470			5,470
Northumberland	4,654			4,654
Ontario	5,233	Oshawa	3,491	8,724
Oxford	7,094	Woodstock	2,431	9,525
Parry Sound	2,330			2,330
Peel	5,168			5,168
Perth	5,703	Stratford	2,353	8,056
Peterborough	3,143	Peterborough	3,168	6,311
Prescott	1,685			1,685
Prince Edward	2,827			2,827
Rainy River	1,286			1,286
Renfrew	5,419			5,419
Russell	1,366			1,366
Simcoe	11,251			11,251
Stormont	3,626			3,626
Sudbury	1,694	Sudbury	2,772	4,466
Thunder Bay	1,217	Fort William Port Arthur	2,513 2,241	5,971
Temiskaming	6,664			6,664
Victoria	4,471			4,471
Waterloo	6,863	Galt Kitchener	1,890 4,179	12,932
Welland	6,856	Niagara Falls Welland	3,497 1,737	12,090
Wellington	5,919	Guelph	2,830	8,749
Wentworth	4,966	Hamilton	19,781	24,747
York	16,991	Toronto	102,403	119,394
Foreign	378			378
	250,976		219,641	470,617

PASSENGER CARS

Cylinders and Horsepower

	Total	
Four cylinders	213,831	
Six cylinders (under 28 horsepower)	204,697	
Six cylinders (over 28 horsepower)	15,916	
Eight cylinders (under 35 horsepower)	31,063	
Eight cylinders (over 35 horsepower)	4,078	
Twelve cylinders	157	
Sixteen cylinders	32	
Electric	5	
Steam	14	
Free	824	
		470,617

Registrations

Originals	32,440	
Renewals	438,177	
		470,617

COMMERCIAL CARS REGISTERED, 1934

Counties		Cities		Total
Algoma	410	Sault Ste. Marie	425	835
Brant	355	Brantford	744	1,099
Bruce	534			534
Carleton	614	Ottawa	2,073	2,687
Dufferin	225			225
Dundas	235			235
Durham	394			394
Elgin	580	St. Thomas	200	780
Essex	1,752	Windsor	1,250	3,002
Frontenac	296	Kingston	577	873
Glengarry	183			183
Grenville	291			291
Grey	370	Owen Sound	231	601
Haldimand	467			467
Haliburton	65			65
Halton	741			741
Hastings	722	Belleville	393	1,115
Huron	594			594
Kenora	464			464
Kent	846	Chatham	582	1,428
Lambton	402	Sarnia	396	798
Lanark	427			427
Leeds	681			681
Lennox and Addington	327			327
Lincoln	961	St. Catharines	756	1,717
Manitoulin	82			82
Middlesex	861	London	1,546	2,407
Muskoka	378			378
Nipissing	289	North Bay	297	586
Norfolk	704			704
Northumberland	568			568
Ontario	554	Oshawa	419	973
Oxford	815	Woodstock	285	1,100
Parry Sound	395			395
Peel	893			893
Perth	470	Stratford	301	771
Peterborough	239	Peterborough	543	782
Prescott	212			212
Prince Edward	375			375
Rainy River	274			274
Renfrew	501			501
Russell	303			303
Simcoe	1,327			1,327
Stormont	439			439
Sudbury	448	Sudbury	426	874
Thunder Bay	307	Fort William	540	1,292
		Port Arthur	445	
Temiskaming	807			807
Victoria	613			613
Waterloo	780	Galt	273	1,697
		Kitchener	644	
Welland	1,147	Niagara Falls	445	1,878
		Welland	286	
Wellington	446	Guelph	458	904
Wentworth	1,187	Hamilton	3,111	4,298
York	2,767	Toronto	15,415	18,182
Foreign	258			258
	31,375		33,061	64,436

CONVERTIBLE VEHICLES REGISTERED, 1934

Counties		Cities		Total
Algoma	24	Sault Ste. Marie	3	27
Brant	37	Brantford	41	78
Bruce	40		....	40
Carleton	61	Ottawa	38	99
Dufferin	10		....	10
Dundas	12		....	12
Durham	74		....	74
Elgin	45	St. Thomas	13	58
Essex	52	Windsor	27	79
Frontenac	48	Kingston	15	63
Glengarry	9		....	9
Grenville	18		....	18
Grey	48	Owen Sound	12	60
Haldimand	14		....	14
Haliburton	....		....	....
Halton	45		....	45
Hastings	44	Belleville	26	70
Huron	36		....	36
Kenora	12		....	12
Kent	48	Chatham	9	57
Lambton	42	Sarnia	11	53
Lanark	56		....	56
Leeds	61		....	61
Lennox and Addington	22		....	22
Lincoln	65	St. Catharines	11	76
Manitoulin	....		....	....
Middlesex	96	London	38	134
Muskoka	18		....	18
Nipissing	9	North Bay	....	9
Norfolk	47		....	47
Northumberland	29		....	29
Ontario	41	Oshawa	10	51
Oxford	96	Woodstock	9	105
Parry Sound	22		....	22
Peel	21		....	21
Perth	38	Stratford	14	52
Peterborough	50	Peterborough	13	63
Prescott	20		....	20
Prince Edward	8		....	8
Rainy River	13		....	13
Renfrew	27		....	27
Russell	13		....	13
Simcoe	122		....	122
Stormont	27		....	27
Sudbury	9	Sudbury	6	15
Thunder Bay	3	Fort William Port Arthur	4 16	23
Temiskaming	63		....	63
Victoria	45		....	45
Waterloo	31	Galt Kitchener	18 11	60
Welland	79	Niagara Falls Welland	18 9	106
Wellington	33	Guelph	25	58
Wentworth	47	Hamilton	41	88
York	129	Toronto	227	356
Foreign	....		....	....
	2,059		665	2,724

COMMERCIAL CARS REGISTERED

Tires

Pneumatic	61,338	
Solid	282	
Municipal	2,036	
Ontario Government Dominion Government	780	
		64,436

Gross Weights—Pneumatic Tires

Less than two tons	24,465	
Of two tons and up to three tons	16,297	
More than three tons and up to four tons	8,351	
More than four tons and up to five tons	4,302	
More than five tons and up to six tons	2,501	
More than six tons and up to seven tons	1,885	
More than seven tons and up to eight tons	1,564	
More than eight tons and up to nine tons	645	
More than nine tons and up to ten tons	1,259	
More than ten tons and up to eleven tons	24	
More than eleven tons and up to twelve tons	19	
More than twelve tons and up to thirteen tons	3	
More than thirteen tons and up to fourteen tons	3	
More than fourteen tons and up to fifteen tons	20	
		61,338

Gross Weights—Solid Tires

Less than two tons	14	
Of two tons and up to three tons	28	
More than three tons and up to four tons	13	
More than four tons and up to five tons	21	
More than five tons and up to six tons	28	
More than six tons and up to seven tons	34	
More than seven tons and up to eight tons	93	
More than eight tons and up to nine tons	26	
More than nine tons and up to ten tons	20	
More than ten tons and up to eleven tons	1	
More than eleven tons and up to twelve tons	4	
		282
Municipal	2,036	
Ontario Government Dominion Government	780	
		2,816
		64,436

CONVERTIBLE CARS REGISTERED

Convertible vehicles		2,724
Less than two tons	2,707	
Of two tons and up to three tons	9	
Ontario Government Dominion Government	8	
		2,724

TRAILERS REGISTERED, 1934

Counties		Cities		Total
Algoma	71	Sault Ste. Marie	109	180
Brant	253	Brantford	206	459
Bruce	346			346
Carleton	247	Ottawa	388	635
Dufferin	101			101
Dundas	99			99
Durham	201			201
Elgin	427	St. Thomas	84	511
Essex	783	Windsor	303	1,086
Frontenac	75	Kingston	130	205
Glengarry	48			48
Grenville	70			70
Grey	221	Owen Sound	51	272
Haldimand	265			265
Haliburton	8			8
Halton	196			196
Hastings	301	Belleville	111	412
Huron	475			475
Kenora	27			27
Kent	580	Chatham	157	737
Lambton	481	Sarnia	99	580
Lanark	191			191
Leeds	164			164
Lennox and Addington	149			149
Lincoln	195	St. Catharines	140	335
Manitoulin	9			9
Middlesex	629	London	420	1,049
Muskoka	98			98
Nipissing	42	North Bay	48	90
Norfolk	426			426
Northumberland	215			215
Ontario	204	Oshawa	171	375
Oxford	477	Woodstock	52	529
Parry Sound	50			50
Peel	268			268
Perth	386	Stratford	110	496
Peterborough	117	Peterborough	135	252
Prescott	63			63
Prince Edward	133			133
Rainy River	116			116
Renfrew	218			218
Russell	51			51
Simcoe	421			421
Stormont	129			129
Sudbury	20	Sudbury	39	59
Thunder Bay	19	Fort William	89	144
		Port Arthur	36	
Temiskaming	181			181
Victoria	190			190
Waterloo	391	Galt	60	596
		Kitchener	145	
Welland	293	Niagara Falls	119	473
		Welland	61	
Wellington	289	Guelph	81	370
Wentworth	272	Hamilton	754	1,026
York	796	Toronto	3,193	3,989
Foreign	103			103
	12,580		7,291	19,871

Trailer Gross Weights

One ton or less	17,151
More than one ton and up to two tons	602
More than two tons and up to three tons	199
More than three tons and up to four tons	212
More than four tons and up to five tons	352

Trailer Gross Weights—*Continued*

More than five tons and up to six tons	335
More than six tons and up to seven tons	203
More than seven tons and up to eight tons	391
More than eight tons and up to nine tons	11
More than nine tons and up to ten tons	41
More than ten tons and up to eleven tons	....
More than eleven tons and up to twelve tons	....
More than twelve tons and up to thirteen tons	....
More than thirteen tons and up to fourteen tons	....
More than fourteen tons and up to fifteen tons	7
Municipal	299
Free	68
	19,871

AUTOMOBILE DEALERS REGISTERED, 1934

Counties		Cities		Total
Algoma	....	Sault Ste. Marie	9	9
Brant	3	Brantford	14	17
Bruce	15		....	15
Carleton	9	Ottawa	58	67
Dufferin	6		....	6
Dundas	6		....	6
Durham	8		....	8
Elgin	6	St. Thomas	5	11
Essex	13	Windsor	48	61
Frontenac	2	Kingston	14	16
Glengarry	2		....	2
Grenville	7		....	7
Grey	8	Owen Sound	8	16
Haldimand	12		....	12
Haliburton	....		....	....
Halton	9		....	9
Hastings	17	Belleville	8	25
Huron	11		....	11
Kenora	10		....	10
Kent	11	Chatham	12	23
Lambton	5	Sarnia	5	10
Lanark	13		....	13
Leeds	11		....	11
Lennox and Addington	5		....	5
Lincoln	4	St. Catharines	13	17
Manitoulin	....		....	....
Middlesex	2	London	27	29
Muskoka	7		....	7
Nipissing	1	North Bay	4	5
Norfolk	3		....	3
Northumberland	8		....	8
Ontario	10	Oshawa	37	47
Oxford	11	Woodstock	9	20
Parry Sound	4		....	4
Peel	6		....	6
Perth	6	Stratford	9	15
Peterborough	....	Peterborough	12	12
Prescott	8		....	8
Prince Edward	8		....	8
Rainy River	3		....	3
Renfrew	22		....	22
Russell	6		....	6
Simcoe	33		....	33
Stormont	14		....	14
Sudbury	....	Sudbury	10	10
Thunder Bay	3	Fort William	9	18
		Port Arthur	6	
Temiskaming	30		....	30
Victoria	8		....	8
Waterloo	5	Galt	5	34
		Kitchener	24	

AUTOMOBILE DEALERS REGISTERED, 1934—*Continued*

Counties		Cities		Total
Welland	5	Niagara Falls Welland	7 8	20
Wellington	13	Guelph	12	25
Wentworth	3	Hamilton	41	44
York	27	Toronto	263	290
Foreign	2	....	....	2
	441		677	1,118

COMMERCIAL DEALERS REGISTERED, 1934

Counties		Cities		Total
Algoma	...	Sault Ste. Marie	...	...
Brant	...	Brantford	1	1
Bruce	...	....	...	...
Carleton	...	Ottawa	2	2
Dufferin	...	....	...	...
Dundas	...	....	...	...
Durham	...	....	...	...
Elgin	...	St. Thomas	...	...
Essex	1	Windsor	5	6
Frontenac	...	Kingston	...	...
Glengarry	...	....	...	...
Grenville	...	....	...	...
Grey	...	Owen Sound	...	...
Haldimand	...	....	...	...
Haliburton	...	....	...	...
Halton	1	....	...	1
Hastings	...	Belleville	...	...
Huron	...	....	...	...
Kenora	...	....	...	...
Kent	...	Chatham	1	1
Lambton	...	Sarnia	...	...
Lanark	...	....	...	...
Leeds	...	....	...	...
Lennox and Addington	...	....	...	...
Lincoln	...	St. Catharines	2	2
Manitoulin	...	....	...	...
Middlesex	...	London	4	4
Muskoka	...	....	...	...
Nipissing	...	North Bay	...	...
Norfolk	...	....	...	...
Northumberland	...	....	...	...
Ontario	...	Oshawa	1	1
Oxford	...	Woodstock	...	...
Parry Sound	...	....	...	...
Peel	...	....	...	...
Perth	...	Stratford	...	...
Peterborough	...	Peterborough	...	...
Prescott	...	....	...	...
Prince Edward	...	....	...	...
Rainy River	...	....	...	...
Renfrew	...	....	...	...
Russell	...	....	...	...
Simcoe	...	....	...	...
Stormont	...	....	...	...
Sudbury	...	Sudbury	...	...
Thunder Bay	...	Fort William Port Arthur	1 ...	1
Temiskaming	...	....	...	...
Victoria	...	....	...	...
Waterloo	...	Galt Kitchener	... 3	3
Welland	1	Niagara Falls Welland	... ...	1
Wellington	...	Guelph	1	1
Wentworth	...	Hamilton	12	12
York	...	Toronto	32	32
Foreign	...	....	...	...
	3		65	68

MOTORCYCLES REGISTERED, 1934

Counties		Cities		Total
Algoma	15	Sault Ste. Marie	24	39
Brant	30	Brantford	24	54
Bruce	17		...	17
Carleton	38	Ottawa	223	261
Dufferin	13		...	13
Dundas	16		...	16
Durham	26		...	26
Elgin	15	St. Thomas	29	44
Essex	29	Windsor	67	96
Frontenac	7	Kingston	59	66
Glengarry	15		...	15
Grenville	9		...	9
Grey	20	Owen Sound	5	25
Haldimand	20		...	20
Haliburton	2		...	2
Halton	43		...	43
Hastings	26	Belleville	29	55
Huron	62		...	62
Kenora	10		...	10
Kent	29	Chatham	10	39
Lambton	24	Sarnia	18	42
Lanark	30		...	30
Leeds	34		...	34
Lennox and Addington	14		...	14
Lincoln	34	St. Catharines	21	55
Manitoulin	4		...	4
Middlesex	43	London	136	179
Muskoka	32		...	32
Nipissing	21	North Bay	11	32
Norfolk	59		...	59
Northumberland	32		...	32
Ontario	47	Oshawa	54	101
Oxford	51	Woodstock	13	64
Parry Sound	11		...	11
Peel	45		...	45
Perth	24	Stratford	35	59
Peterborough	8	Peterborough	26	34
Prescott	12		...	12
Prince Edward	15		...	15
Rainy River	6		...	6
Renfrew	29		...	29
Russell	10		...	10
Simcoe	71		...	71
Stormont	70		...	70
Sudbury	1	Sudbury	25	26
Thunder Bay	6	Fort William	24	36
		Port Arthur	6	
Temiskaming	92		...	92
Victoria	18		...	18
Waterloo	70	Galt	20	158
		Kitchener	68	
Welland	52	Niagara Falls	25	102
		Welland	25	
Wellington	39	Guelph	18	57
Wentworth	41	Hamilton	180	221
York	236	Toronto	1,569	1,805
Foreign	1		...	1
	1,724		2,744	4,468

SUMMARY OF REGISTRATION OF MOTOR VEHICLES

By Type and by County

1934

County	Passenger	Commercial	Two-Purpose	Trailer	Motorcycles	Total	Per cent of Total Registrations
Algoma	4,731	835	27	180	39	5,812	1.03
Brant	7,058	1,099	78	459	34	8,748	1.56
Bruce	7,215	534	40	346	17	8,152	1.45
Carleton	21,075	2,687	99	635	261	24,757	4.40
Cochrane*	......	.....	....	.....	....	......	.....
Dufferin	2,514	225	10	101	13	2,863	.51
Dundas	2,381	235	12	99	16	2,743	.49
Durham	4,004	394	74	201	26	4,699	.84
Elgin	7,195	780	58	511	44	8,588	1.53
Essex	21,661	3,002	79	1,086	96	25,924	4.61
Frontenac	6,253	873	63	205	66	7,460	1.33
Glengarry	1,997	183	9	48	15	2,252	.40
Grenville	2,404	291	18	70	9	2,792	.50
Grey	7,974	601	60	272	25	8,932	1.59
Haldimand	4,411	467	14	265	20	5,177	.92
Haliburton	536	65	....	8	2	611	.11
Halton	4,775	741	45	196	43	5,800	1.03
Hastings	9,161	1,115	70	412	55	10,813	1.92
Huron	7,305	594	36	475	62	8,472	1.51
Kenora	1,319	464	12	27	10	1,832	.32
Kent	10,928	1,428	57	737	39	13,189	2.35
Lambton	9,529	798	53	580	42	11,002	1.96
Lanark	4,598	427	56	191	30	5,302	.94
Leeds	4,967	681	61	164	34	5,907	1.05
Lennox and Addington	2,825	327	22	149	14	3,337	.59
Lincoln	8,142	1,717	76	335	55	10,325	1.84
Manitoulin	964	82	....	9	4	1,059	.19
Middlesex	20,666	2,407	134	1,049	179	24,435	4.35
Muskoka	2,544	378	18	98	32	3,070	.55
Nipissing	3,925	586	9	90	32	4,642	.83
Norfolk	5,470	704	47	426	59	6,706	1.19
Northumberland	4,654	568	29	215	32	5,498	.98
Ontario	8,724	973	51	375	101	10,224	1.82
Oxford	9,525	1,100	105	529	64	11,323	2.01
Parry Sound	2,330	395	22	50	11	2,808	.50
Peel	5,168	893	21	268	45	6,395	1.14
Perth	8,056	771	52	496	59	9,434	1.68
Peterborough	6,311	782	63	252	34	7,442	1.32
Prescott	1,685	212	20	63	12	1,992	.35
Prince Edward	2,827	375	8	133	15	3,358	.60
Rainy River	1,286	274	13	116	6	1,695	.30
Renfrew	5,419	501	27	218	29	6,194	1.10
Russell	1,366	303	13	51	10	1,743	.31
Simcoe	11,251	1,327	122	421	71	13,192	2.35
Stormont	3,626	439	27	129	70	4,291	.76
Sudbury	4,466	874	15	59	26	5,440	.97
Thunder Bay	5,971	1,292	23	144	36	7,466	1.33
Temiskaming*	6,664	807	63	181	92	7,807	1.39
Victoria	4,471	613	45	190	18	5,337	.95
Waterloo	12,932	1,697	60	596	158	15,443	2.75
Welland	12,090	1,878	106	473	102	14,649	2.60
Wellington	8,749	904	58	370	57	10,138	1.80
Wentworth	24,747	4,298	88	1,026	221	30,380	5.40
York	119,394	18,182	356	3,989	1,805	143,726	25.57
Foreign	378	258	....	103	1	740	.13
Totals	470,617	64,436	2,724	19,871	4,468	562,116	100.00

*Registrations for Districts of Cochrane and Temiskaming are combined.

DISTRIBUTION OF MOTOR VEHICLES

By City and Type

City	Passenger	Commercial	Two-Purpose	Trailer	Motorcycle	Total	Per cent of Total Registration
Belleville	2,169	393	26	111	29	2,728	.48
Brantford	3,926	744	41	206	24	4,941	.88
Chatham	2,818	582	9	157	10	3,576	.64
Fort William	2,513	540	4	89	24	3,170	.56
Galt	1,890	273	18	60	20	2,261	.40
Guelph	2,830	458	25	81	18	3,412	.61
Hamilton	19,781	3,111	41	754	180	23,867	4.25
Kingston	3,378	577	15	130	59	4,159	.74
Kitchener	4,179	644	11	145	68	5,047	.90
London	12,163	1,546	38	420	136	14,303	2.54
Niagara Falls	3,497	445	18	119	25	4,104	.73
North Bay	1,581	297	....	48	11	1,937	.34
Oshawa	3,491	419	10	171	54	4,145	.74
Ottawa	16,258	2,073	38	388	223	18,980	3.38
Owen Sound	1,709	231	12	51	5	2,008	.36
Peterborough	3,168	543	13	135	26	3,885	.69
Port Arthur	2,241	445	16	36	6	2,744	.49
St. Catharines	3,775	756	11	140	21	4,703	.84
St. Thomas	2,473	200	13	84	29	2,799	.50
Sarnia	3,046	396	11	99	18	3,570	.64
Sault Ste. Marie	2,379	425	3	109	24	2,940	.52
Stratford	2,353	301	14	110	35	2,813	.49
Sudbury	2,772	426	6	39	25	3,268	.58
Toronto	102,403	15,415	227	3,193	1,569	122,807	21.85
Welland	1,737	286	9	61	25	2,118	.38
Windsor	8,680	1,250	27	303	67	10,327	1.84
Woodstock	2,431	285	9	52	13	2,790	.49
Total Cities	219,641	33,061	665	7,291	2,744	263,402	46.86
Total Ontario	470,617	64,436	2,724	19,871	4,468	562,116	100.00

MOTOR VEHICLE REGISTRATIONS FOR THE YEARS 1904-1934, INCLUSIVE

Year	Passenger cars	Owned in Ontario	Others	Commercial Vehicles	Two-Purpose Vehicles	Motorcycles	Trailers	Public Vehicles		Public Commercial Vehicles	
								Oper.	Licenses	Oper.	Licenses
1904	535										
1905	553										
1906	1,176	517	659								
1907	1,530	550	980								
1908	1,754	589	1,165								
1909	2,452	1,020	1,432								
1910	4,230	1,977	2,253								
1911	11,339	7,338	4,001								
1912	16,268	11,939	4,327			1,754					
1913	23,700	17,750	5,950			2,900					
1914	31,724	25,308	6,415			3,633					
1915	42,346	36,661	5,686			4,174					
1916	51,589	50,587	1,002	2,786		4,287					
1917	78,861	78,475	386	4,929		5,180					
1918	101,845	101,599	246	7,529		5,002					
1919	127,860	127,512	348	11,428		5,516					
1920	155,861	155,519	342	16,204		5,496					
1921	181,978	181,686	292	19,554		4,989	327				
1922	210,333	210,008	325	24,164		4,799	463				
1923	245,815	245,435	380	28,612		4,325	591				
1924	271,341	270,876	465	31,488		3,941	778	50	102		
1925	303,736	303,216	520	34,690		3,748	1,058	91	216		
1926	343,992	343,586	406	39,012		3,345	1,398	107	384		
1927	386,903	386,311	592	43,442		3,159	1,962	103	480		
1928	429,426	428,890	536	54,714		3,197	3,281	104	522	367	945
1929	473,222	472,634	588	55,218	8,226	3,541	4,903	80	587	285	1,118
1930	490,906	490,270	636	61,690	5,986	3,924	7,111	95	643	372	1,155
1931	489,713	489,067	646	64,256	4,177	4,070	9,996	90	629	1,977	3,900
1932	462,923	462,598	325	61,347	3,239	4,088	12,998	100	590	1,938	3,397
1933	453,314	452,961	353	59,760	2,909	4,370	16,311	85	494	2,239	4,235
1934	470,617	470,239	378	64,436	2,724	4,468	19,871	85	513	1,942	4,086

MOTOR VEHICLES BRANCH

Highways Department

Revenue for the Fiscal Year 1933-1934

		Gross	Deductions	Net
Passenger car permits		$4,679,446 00	$96,714 22	$4,582,731 78
Commercial permits		2,167,149 75	13,424 13	2,153,725 62
Automobile dealer permits		22,350 00	20 00	22,330 00
Commercial dealer permits		5,331 00	....	5,331 00
Motorcycle dealer permits		54 00	....	54 00
Trailer permits		158,579 00	3,388 90	155,190 10
Two-purpose permits		27,086 00	640 25	26,445 75
Chauffeurs		201,334 00	12,942 55	188,391 45
Operators		522,488 50	46,531 20	475,957 30
Motorcycle permits		12,677 00	354 00	12,323 00
Transfers		130,053 00	3,988 40	126,064 60
Duplicate cards		6,313 50	1 50	6,312 00
In transits		8,195 00	658 50	7,536 50
Certificates and searches		421 43	....	421 43
Fines		69,149 40	165 00	68,984 40
Lists		1,558 49	....	1,558 49
Public vehicles		92,848 79	....	92,848 79
Public commercial vehicles		109,536 45	128 68	109,407 77
Postage		55 20	....	55 20
Testing headlights		85 00	....	85 00
Examination fees		14,233 00	3 00	14,230 00
Miscellaneous		417 89	18 00	399 89
		$8,229,362 40	$178,978 33	$8,050,384 07
Express charges paid by agents	$145 50			
Due from agents	547 24			
			692 74	
		$8,229,362 40	$179,671 07	$8,049,691 33
Bank interest	$5 21			
Journal entry *re* collection of cheque from MacMillan Motors (in liquidation)	7 96			
1933 Balances paid	9 50			
				22 67
		$8,229,362 40	$179,671 07	$8,049,714 00

MOTOR VEHICLES BRANCH

Highways Department

Revenue for Fiscal Year 1933-1934

Passenger car permits	$4,679,446 00		
Commercial permits	2,167,149 75		
Automobile dealer permits	22,350 00		
Commercial dealer permits	5,331 00		
Motorcycle dealer permits	54 00		
Trailer permits	158,579 00		
Two-purpose permits	27,086 00		
Chauffeurs	201,334 00		
Operators	522,488 50		
Motorcycle permits	12,677 00		
Transfers	130,053 00		
Duplicate cards	6,313 50		
In transits	8,195 00		
Certificates and searches	421 43		
Fines	69,149 40		
Lists	1,558 49		
Public vehicles	92,848 79		
Public commercial vehicles	109,536 45		
Postage	55 20		
Testing headlights	85 00		
Examination fees	14,233 00		
Miscellaneous	417 89		
		$8,229,362 40	
LESS:			
Commissions deducted by agents	$176,081 20		
Express charges paid by agents	145 50		
Cheques charged back by Provincial Treasurer	475 96		
Journal entry *re* $10.00 Fine item credited to this Branch in error	10 00		
Refunds deducted by Provincial Treasurer	2,411 17		
Due from agents, 1933-1934	547 24		
		179,671 07	
			$8,049,691 33
Interest	$5 21		
Journal entry *re* collection of cheque from MacMillan Motors (in liquidation)	7 96		
1933 Balances paid	9 50		
			22 67
			$8.049,714 00

ITEMIZED STATEMENT OF RECEIPTS FOR FISCAL YEAR 1933-1934

PASSENGER CARS

208,017 at	$7.00 (4-cylinder)	$1,456,119 00	
5,823 at	3.50 (half fee)	20,380 50	
199,150 at	12.00 (6-cylinder)	2,389,800 00	
5,588 at	6.00 (half fee)	33,528 00	
15,290 at	15.00 (6-cylinder)	229,350 00	
602 at	7.50 (half fee)	4,515 00	
29,587 at	15.00 (8-cylinder)	443,805 00	
1,476 at	7.50 (half fee)	11,070 00	
3,983 at	20.00 (8-cylinder)	79,660 00	
105 at	10.00 (half fee)	1,050 00	
150 at	30.00 (12-cylinder)	4,500 00	
8 at	15.00 (half fee)	120 00	
32 at	40.00 (16-cylinder)	1,280 00	
5 at	20.00, electric	100 00	
13 at	20.00, steam	260 00	
1 at	10.00, steam (half fee)	10 00	
1,834 at	2.00, new sets	3,668 00	
106 new sets. No fee.			
889 free.			
(472 659)	Balance of fees	230 50	
			$4,679,446 00

COMMERCIALS

Pneumatic Tires

22,646 at $10.00	$226,460 00
1,694 at 5.00 (half fee)	8,470 00
14,929 at 24.00	358,296 00
1,135 at 12.00 (half fee)	13,620 00
148 at 6.00 (quarter fee)	888 00
7,779 at 48.00	373,392 00
413 at 24.00 (half fee)	9,912 00
82 at 12.00 (quarter fee)	984 00
3,906 at 65.00	253,890 00
259 at 32.50 (half fee)	8,417 50
47 at 16.25 (quarter fee)	763 75
2,177 at 84.00	182,868 00
144 at 42.00 (half fee)	6,048 00
34 at 21.00 (quarter fee)	714 00
1,617 at 98.00	158,466 00
98 at 49.00 (half fee)	4,802 00
20 at 24.50 (quarter fee)	490 00
1,389 at 112.00	155,568 00
74 at 56.00 (half fee)	4,144 00
27 at 28.00 (quarter fee)	756 00
545 at 144.00	78,480 00
27 at 72.00 (half fee)	1,944 00
9 at 36.00 (quarter fee)	324 00
1,087 at 170.00	184,790 00
35 at 85.00 (half fee)	2,975 00
14 at 42.50 (quarter fee)	595 00
3 at 198.00	594 00
12 at 228.00	2,736 00
3 at 260.00	780 00
3 at 294.00	882 00
19 at 330.00	6,270 00
1 at 165.00 (half fee)	165 00

Solid Tires

11 at $16.00	$176 00
1 at 8.00 (half fee)	8 00
23 at 33.00	759 00
5 at 16.50 (half fee)	82 50
2 at 8.25 (quarter fee)	16 50
13 at 60.00	780 00
18 at 80.00	1,440 00
3 at 40.00 (half fee)	120 00
2 at 20.00 (quarter fee)	40 00
27 at 102.00	2,754 00
1 at 51.00 (half fee)	51 00
1 at 25.50 (quarter fee)	25 50
33 at 119.00	3,927 00
1 at 59.50 (half fee)	59 50
89 at 136.00	12,104 00
4 at 68.00 (half fee)	272 00
26 at 171.00	4,446 00
2 at 42.75 (quarter fee)	85 50
20 at 200.00	4,000 00
1 at 231.00	231 00
3 at 264.00	792 00
1 at 132.00 (half fee)	132 00
2,031 at 2.00, municipal	4,062 00
856 at 2.00, new sets	1,712 00
793 free.	
4 new sets. No fee.	
Increase capacity and balance fees	20,541 50

(Buses)

1 at $10.00	$10 00
27 at 24.00	648 00
36 at 36.00	1,296 00
4 at 18.00 (half fee)	72 00
62 at 55.00	3,410 00
6 at 27.50 (half fee)	165 00

(**Buses**)—*Continued*

2 at 13.75 (quarter fee)	27 50	
123 at 72.00	8,856 00	
3 at 36.00 (half fee)	108 00	
1 at 18.00 (quarter fee)	18 00	
120 at 84.00	10,080 00	
68 at 96.00	6,528 00	
5 at 48.00 (half fee)	240 00	
58 at 117.00	6,786 00	
123 at 130.00	15,990 00	
1 at 65.00 (half fee)	65 00	
21 at 165.00	3,465 00	
7 at 180.00	1,260 00	
12 at 2.00, new sets	24 00	
11 new sets. No fee.		
(65,038)		$2,167,149 75

"M" DEALERS

1,114 at $20.00	$22,280 00	
4 at 10.00 (half fee)	40 00	
15 at 2.00, new sets	30 00	
(1,133)		$22,350 00

"M.T." DEALERS

10 at $24.00	$240 00	
21 at 48.00	1,008 00	
4 at 65.00	260 00	
5 at 84.00	420 00	
5 at 98.00	490 00	
14 at 112.00	1,568 00	
1 at 144.00	144 00	
6 at 170.00	1,020 00	
1 at 85.00 (half fee)	85 00	
1 at 88.00, trailer	88 00	
4 at 2.00, new sets	8 00	
(72)		5,331 00

"M.C." DEALERS

(9) 9 at $6.00	$54 00	
		54 00

TRAILERS

14,481 at $3.00	$43,443 00	
2,378 at 1.50 (half fee)	3,567 00	
526 at 10.00	5,260 00	
69 at 5.00 (half fee)	345 00	
171 at 21.00	3,591 00	
18 at 10.50 (half fee)	189 00	
6 at 5.25 (quarter fee)	31 50	
184 at 32.00	5,888 00	
19 at 16.00 (half fee)	304 00	
7 at 8.00 (quarter fee)	56 00	
330 at 50.00	16,500 00	
22 at 25.00 (half fee)	550 00	
5 at 12.50 (quarter fee)	62 50	
315 at 66.00	20,790 00	
11 at 33.00 (half fee)	363 00	
5 at 16.50 (quarter fee)	82 50	
182 at 77.00	14,014 00	
17 at 38.50 (half fee)	654 50	
4 at 19.25 (quarter fee)	77 00	
374 at 88.00	32,912 00	
12 at 44.00 (half fee)	528 00	
2 at 22.00 (quarter fee)	44 00	
11 at 108.00	1,188 00	
1 at 27.00 (quarter fee)	27 00	
39 at 120.00	4,680 00	
2 at 60.00 (half fee)	120 00	
1 at 30.00 (quarter fee)	30 00	
7 at 210.00	1,470 00	
297 at 2.00, municipal	594 00	
5 at 2.00, new sets (1933)	10 00	
86 at 1.00, new sets (1934)	86 00	
69 free.		
(19,656) Increased capacity and balance fees	1,122 00	
		$158,579 00

TWO-PURPOSE

2,576 at	$10.00	$25,760 00	
141 at	5.00 (half fee)	705 00	
8 at	24.00	192 00	
1 at	6.00 (quarter fee)	6 00	
120 at	2.00. new sets	240 00	
8 free.			
(2,854)	Balance of fees	183 00	
			27,086 00

CHAUFFEURS

16,245 at	$2.00, originals	$32,490 00	
4,890 at	1.00, originals (half fee)	4,890 00	
160,185 at	1.00, renewals	160,185 00	
90 free originals.			
7 free renewals.			
(181,417)	Previous year fees	3,769 00	
			201,334 00

OPERATORS

51,252 at	$1.00, originals	$51,252 00	
430,769 at	1.00, renewals	430,769 00	
68,333 at	.50, instruction	34,166 50	
307 at	1.00, "M.C." operator originals	307 00	
553 at	1.00, "M.C." operator renewals	553 00	
1 free "M.C." operator renewal.			
	Previous year's operator's fees	5,421 00	
	Previous year's "M.C." operator's fees	20 00	
(551,215)			522,488 50

MOTORCYCLES

4,039 at	$3.00	$12,117 00	
188 at	1.50 (half fee)	282 00	
131 at	2.00, municipal	262 00	
16 at	1.00, new sets	16 00	
2 new sets. No fee.			
101 free.			
(4,477)			12,677 00

TRANSFERS

59,785 at	$2.00, passenger cars	$119,570 00	
4,657 at	2.00, commercial	9,314 00	
611 at	1.00, motorcycles	611 00	
162 at	2.00, two-purpose	324 00	
117 at	2.00, trailers	234 00	
(65,332)			130,053 00

DUPLICATE CARDS

2,446 at	$0.50, passenger cars	$1,223 00	
438 at	.50, commercials	219 00	
46 at	.50, motorcycles	23 00	
24 at	.50, trailers	12 00	
10 at	.50, two-purpose	5 00	
596 at	.50, passenger transfers	298 00	
41 at	.50, commercial transfers	20 50	
2 at	.50, motorcycle transfers	1 00	
6 at	.50, passenger dealer transfers	3 00	
215 at	.50, chauffeur originals	107 50	
1,427 at	.50, chauffeur renewals	713 50	
284 at	.50, operator originals	142 00	
2,141 at	.50, operator renewals	1,070 50	
3 at	.50, "M.C." operator originals	1 50	
12 at	.50, "M.C." operator renewals	6 00	
1 at	.50, instruction	50	
(7,692)			
151 at	.50 (1932)	75 50	
4,784 at	.50 (1933)	2,392 00	
			$6,313 50

IN TRANSITS

16,390 at	$0.50	$8,195 00	
(16,390)			$8,195 00

SEARCHES AND CERTIFICATES

1 at	$0.18	$ 18	
707 at	.25	176 75	
2 at	.30	60	
142 at	.50	71 00	
1 at	.65	65	
43 at	.75	32 25	
29 at	1.00	29 00	
1 at	1.10	1 10	
12 at	1.25	15 00	
10 at	1.50	15 00	
5 at	1.75	8 75	
1 at	1.90	1 90	
6 at	2.00	12 00	
2 at	2.25	4 50	
4 at	2.50	10 00	
1 at	2.75	2 75	
2 at	3.00	6 00	
1 at	3.25	3 25	
1 at	3.50	3 50	
2 at	4.00	8 00	
1 at	5.00	5 00	
1 at	5.75	5 75	
1 at	8.50	8 50	
(976)			421 43

*Miscellaneous		417 89
Fines		69,149 40
Lists		1,558 49
Public Vehicles		92,848 79
Public Commercial Vehicles		109,536 45
Postage		55 20
Testing Headlights		85 00
Examination Fees		14,233 00
Commissions paid to agents		176,081 20
Cartage and express charges paid by agents		145 50
Refunds		2,411 17
Balances due by agents		547 24
Cheques charged back as N.S.F.:		
A. McDonald	$22 75	
Wm. J. Buchanan	12 00	
Garden Motors	7 03	
N. J. Foran	13 00	
Frank Neal	10 00	
Alderman Transport	112 00	
Alderman Transport	88 00	
R. Y. MacLean	16 00	
Wm. Lyon	42 00	
MacMillan Motors	8 00	
N. J. McCallum	39 00	
W. L. Cadman	1 50	
O. E. Ward	37 50	
H. C. Mayberry	48 18	
J. Jackson	1 00	
N. J. McCallum	18 00	
		475 96
Journal entry *re* $10.00 Fine item, credited to this Branch in error		10 00
Deposited with Treasury as shown by Treasurer's Statement		8,049,714 00
		$8,229,385 07

SEARCHES AND CERTIFICATES—*Continued*

Interest	$5 21	
Journal entry *re* collection of cheque from MacMillan Motors (in liquidation)	7 96	
1933 balances paid	9 50	
		22 67
		$3,229,362 40

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*Sundries and cheques charged back redeposited:

Ralph England (1933)	$ 1 03
A. McDonald	22 75
Wm. J. Buchanan	12 00
N. J. Foran	13 00
Alderman Transport	112 00
R. Y. MacLean	16 00
W. L. Cadman	1 50
J. Jackson	1 00
H. G. Mayberry	48 18
Edward's Transport (O. E. Ward)	37 50
W. J. McCallum	39 00
Alderman Transport (part payment of $88.00 cheque deducted in April)	32 00
Alderman Transport (part payment of $88.00 cheque deducted in April)	46 15
Sundries	35 78
	$417 89

ANNUAL REPORT OF THE FINANCIAL RESPONSIBILITY DIVISION, MOTOR VEHICLES BRANCH, DEPARTMENT OF HIGHWAYS, ONTARIO, 1934

After more than four full years of operation of the Financial Responsibility provisions of The Highway Traffic Act, during which time there has been only one important amendment, it is possible to evaluate accurately the efficiency of the law as a whole, and also to consider, against a background of experience, the effect of the various provisions.

As originally enacted, Part XIII of The Highway Traffic Act (the financial responsibility provisions) required the suspension of all drivers convicted of offences under Sections 16 and 66 of the Act. While it was realized that the provision requiring drivers to hold licenses was of the utmost importance, it was found that, especially in cases where the offence was a failure to renew a license rather than complete disregard of the law, such provision was working a hardship, and since the offence was in most instances of a more or less technical nature, the penalty appeared too severe. The amendment of this provision was the first important change made in this law, and the clause was not deleted entirely but its application was limited to those cases where the driver became involved in an accident while operating without a license. As this offence had formerly been the foundation of approximately forty per cent of the suspensions under the Financial Responsibility Law, the year 1934 saw a noteworthy reduction in the total number of suspensions.

At this time it might be pointed out that another provision of the Financial Responsibility part of the Act appears in need of revision. As at present worded, the law requires that, after a suspension has been put into effect, proof of financial responsibility must remain on file for a period of three consecutive years. Inasmuch as there are many cases where a motorist disposes of his car or does not drive for some months or perhaps longer, this provision is sometimes a distinct hardship as is obvious in the case of a person who had maintained proof for a period of over two years and subsequently allowed his policy to lapse when he discontinued driving. Under such circumstances he would be required to again file proof for a period of three years longer. It was not the intention, when the Act was drafted, that a driver should be placed in such a situation, nor was it deemed desirable, except in the case of an unsatisfied judgment, that a driver should be permanently under suspension in the event that he was unable to secure insurance for any reason.

An amendment to the provisions permitting the return of license after a period of three years, provided that the individual's record was not marked by further offences during this period (which would, of course, involve the serious offence of operating while under suspension) would appear necessary to relieve the conditions which now exist.

In practically all other respects the present provisions of the Act appear to be functioning in a highly satisfactory manner.

It is most interesting to study the figures regarding suspensions for failure to satisfy judgments. This is a provision which, experience has shown, is extraordinarily effective, yet during 1934 it resulted in the suspension of only forty-six licenses. But it is a known fact that the mere threat of the solicitor for a judgment creditor to report failure to satisfy a judgment is in almost every instance a sufficient lever to force an arrangement for payment. Under the circumstances it is impossible that the true value of the provision will ever be shown by statistics, and the most that can be said is that the number of suspensions which result is almost incredibly small and must indicate that, in the vast majority of cases, judgments are satisfied.

The following table shows the number of suspensions imposed for various causes during the year 1934 and also during the entire period of fifty-two months since September 1st, 1930, when these provisions first came into effect.

Cause of Suspension	Sept. 1, 1930 to Dec. 31, 1934	Calendar Year 1934
Reckless driving, resulting in personal injury or property damage.	4,293	1,322
Speeding, resulting in personal injury or property damage	121	44
Racing	9	0
Driving without license	3,901	147
Criminal negligence	140	32
Other offences	334	88
Failure to satisfy judgment	250	46
Policy cancellation	2,354	690
Failure to return to the scene of accident	707	175
Driving while intoxicated	1,829	420
Totals	13,938	2,964

Below are shown the number of cases in which suspension has been relieved by the filing of proof of financial responsibility during the same periods covered by the foregoing table:

Cause of Suspension	Sept. 1, 1930 to Dec. 31, 1934	Calendar Year 1934
Reckless driving, resulting in personal injury or property damage.	2,690	823
Speeding, resulting in personal injury or property damage	92	36
Racing	9	0
Driving without license	1,392	96
Criminal negligence	57	14
Other offences	75	21
Failure to satisfy judgment	64	22
Policy cancellation	1,451	425
Failure to return to scene of accident	458	107
Driving while intoxicated	724	186
Totals	7,012	1,730

In addition to the above, there were 108 suspensions which expired during the year, and 2,533 others were cancelled under the retroactive amendment to the clause relating to the offence of driving without a license. On December 31st, 1934, there were, therefore, 4,284 suspensions still in effect.

It is interesting to note that, while the law provides for filing of proof of financial responsibility by means of an insurance policy certificate, a surety bond, or the deposit of cash or securities, the former is practically the only method ever used, only one exception being recorded, a single bond having been posted. Nine hundred and seventy-five certificates were filed under the terms of drivers' policies by persons who did not own motor vehicles, while 751 certificates were filed by persons other than the one under suspension to relieve the suspension of a member of the vehicle owner's family or by employers to relieve the suspension of an employee's license. Four thousand eight hundred and twelve certificates were filed on policies issued after a suspension order had been made effective.

The Financial Responsibility Division also enforces other suspensions not requiring that proof of financial responsibility be filed. These suspensions may be imposed by a magistrate for various offences or by the Minister of Highways under the provisions of Section 20 of The Highway Traffic Act. During 1934, 518 such suspensions were put into effect, and in the fifty-two month period 2,999 suspensions of this type were imposed. Of these, 2,636 were for reckless driving.

ANNUAL REPORT OF ACCIDENT REPORTING DIVISION, MOTOR VEHICLES BRANCH, ONTARIO, 1934.

FOREWORD

The compilation of comprehensive statistics of motor vehicle accidents was commenced in September, 1930, when, under the provisions of Part XIV of The Highway Traffic Act, reports were first required of all motor vehicle accidents involving personal injury or property damage in excess of $50.00. Prior to that time, the only official information available was the number of deaths from automobile accidents as tabulated by the Registrar-General.

In the intervening period—from September, 1930, to the end of 1934—reports of 39,467 accidents had been received. These accidents resulted in 2,204 deaths, injury to 35,945 persons, and a direct property damage loss—to vehicles and other property—estimated at $4,190,505.

In the belief that a proper understanding of the accident problem is the first step in its solution, each of these reports has been analysed and a detailed record of the facts concerning the accident—such, for example, as the location, time, actions of driver, condition of the road, weather and light—has been kept.

The large volume of data received largely compensates for any errors which may occur because of superficial investigation or misinterpretation of reports and the massed statistics serve as an invaluable medium upon which to base preventive activities along the four necessary lines of approach, namely, engineering, legislation, education and enforcement.

Many improvements have been applied in recent years with respect to highway and vehicle. In the matter of motor vehicle design, cars have rapidly risen to a high degree of efficiency and of safety by means of more adequate brakes and lights, shatter-proof glass, and stronger bodies. Modern engineering standards of highway construction have been applied with respect to grade-crossing protection, proper signs, width of pavement, type of surface, curves, guard-rails, lower crown and similar items, as a means of promoting safer transportation, and these are being further developed as rapidly as practicable. With the growth in the amount of high-speed night driving, more attention must be given in the near future to the need for the reflectorization of road signs, and illumination of heavily travelled highways.

Efforts to promote safety through the enforcement of the traffic regulations have been carried on not only by the police and other law-enforcement agencies, but also by the Department through the increased use of the power of permit and license suspension.

Educational activities designed to develop a greater appreciation of present-day traffic hazards have also been initiated by the Motor Vehicles Branch, and carried on to the limit of our present facilities. Ontario was the first jurisdiction to make use of paid advertising for this purpose. In addition to the use of bill-boards, newspapers and magazines for advertising, many talks have been delivered by means of the radio and the public platform, to remind drivers and pedestrians of their responsibilities.

Efforts have also been made to help children to adjust themselves to the conditions of modern traffic by the distribution of safety lesson outlines to the teachers, and games, blotters and other similar material to the school-children. These activities among the children, we believe, have met with sufficient success to justify the inclusion of school safety instruction as a part of the curricula.

These various undertakings have undoubtedly done a great deal to promote safer conditions. It is, however, not possible to say to what extent they have been responsible for the lower death rates in recent years, because, while we are aware of the extent of the present situation, we have no means of knowing what our record would be if the various steps along lines of legislation, engineering, education and enforcement had not been taken. We do know, however, that our problem is still one of obvious and ever-present seriousness, and one that deserves the thoughtful consideration of every citizen of Ontario.

While improperly designed or inadequate highway facilities directly or indirectly contribute to motor vehicle accidents, and vehicle defects are also responsible to a degree, the vast majority of mishaps are caused by the human element—the driver, and, in some cases, by the pedestrian or bicyclist—involved. The problem of accident prevention is therefore mainly one of making every driver and every other user of the highway aware of his responsibility for safety, and this interest must be sustained by every means available.

The greatest difficulty in the promotion of safety is not the criminally reckless, drunken or wilfully negligent driver. The relatively small number within this category are undeniably a menace to safe travel, but their removal from the roads must be left, largely, to enforcement agencies. A much larger group, and one that is much more difficult to reach, comprises the people who lack a proper understanding of the rules of safe practice and those who, due to an improper attitude toward other users of the road, fail to practise these rules. It might be said of the persons of this type that they really don't want to have an accident, but neither do they sufficiently want *not* to have one. Every motorist, pedestrian and bicyclist within this group must have his attention and interest aroused by some means that will continually register in his mind the fact that the motor traffic hazard is real and ever-present, and he must be brought to understand that only through his acceptance of responsibility and his co-operation for safety will better traffic conditions be brought about.

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TABLE No. 1—NATURE OF MOTOR VEHICLE ACCIDENTS REPORTED

	1932		1933		1934	
	No.	Per cent	No	Per cent	No.	Per cent
Fatal*	461	5.0	372	4.3	476	4.9
Personal injury	6,182	67.4	5,965	69.1	6,763	70.1
Property damage only	2,528	27.6	2,297	26.6	2,406	25.0
Totals	9,171	100.0	8,634	100.0	9,645	100.0

A total of 9,645 accidents were reported to the Accident Reporting Division during the year 1934. This total was greater than that for any of the previous three calendar years for which figures are available, and represented a percentage advance of 11.7 from the 1933 total. As compared with corresponding totals for 1933, fatal accidents increased by 28 per cent; "personal injury" accidents by 13.4 per cent; and accidents involving only property damage in excess of $50.00, showed an increase of 4.7 per cent.

Motor vehicle† registrations increased from the 1933 total by 4.2 per cent, and from 1932 by 2.0 per cent. Gasoline consumption by motor vehicles during the year amounted to 232,775,724 imperial gallons—an advance of 9.6 per cent from the 1933 total.

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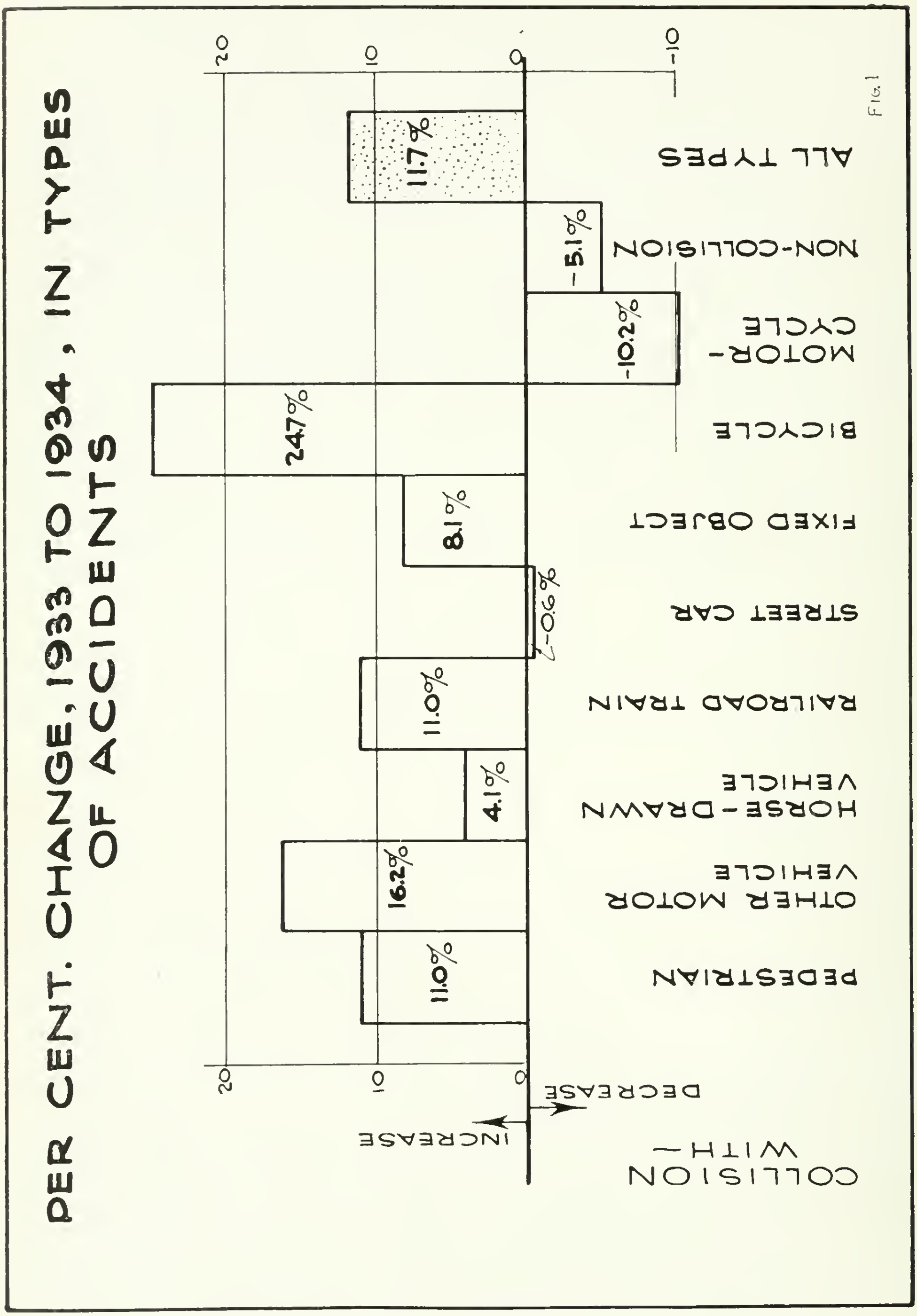
*"Fatal" and "personal injury" accidents are those in which persons suffered fatal or non-fatal injuries, and do not represent the number of persons killed or injured. During 1934, there were 476 "fatal" accidents, in which 512 persons were fatally injured, and 6,763 "personal injury" accidents, in which 8,990 persons suffered non-fatal injuries.

†Includes: passenger, commercial vehicles, buses, convertible vehicles and motorcycles.



PER CENT. CHANGE, 1933 TO 1934, IN TYPES OF ACCIDENTS

Fig. 1

TABLE No. 2—REPORTED MOTOR VEHICLE ACCIDENTS CLASSIFIED ACCORDING TO TYPE OF COLLISION

	1932		1933		1934	
	No.	Per cent	No.	Per cent	No.	Per cent
Collision with:						
Pedestrian	2,826	30.8	2,697	31.2	2,994	31.1
Other motor vehicle	3,555	38.7	3,243	37.6	3,767	39.1
Horse-drawn vehicle	247	2.7	193	2.2	201	2.1
Railroad train	118	1.3	91	1.1	101	1.0
Street car	229	2.5	176	2.0	175	1.8
Other vehicles	18	.2	9	.1	14	.1
Fixed object	596	6.5	653	7.6	706	7.3
Bicycle	596	6.5	660	7.7	823	8.5
Motorcycle	190	2.1	177	2.0	159	1.7
Non-collision	703	7.7	648	7.5	615	6.4
Miscellaneous	93	1.0	87	1.0	90	.9
Totals	9,171	100.0	8,634	100.0	9,645	100.0

The almost constant similarity in the percentage distribution of the various types of accidents from year to year may be observed from a study of the above tables. Only four types of accident over the three-year period appear to show any suggestion of a trend in either direction. Collisions with street cars, with motorcycles, and non-collision accidents have become slightly less frequent in each successive year. The rapidly returning popularity of the bicycle is the most obvious explanation of the growing number of mishaps involving this type of vehicle. These accidents increased by 24.7 per cent and 38.1 per cent from the corresponding totals for 1933 and 1932

PER CENT. OF FATAL ACCIDENTS IN THE VARIOUS TYPES

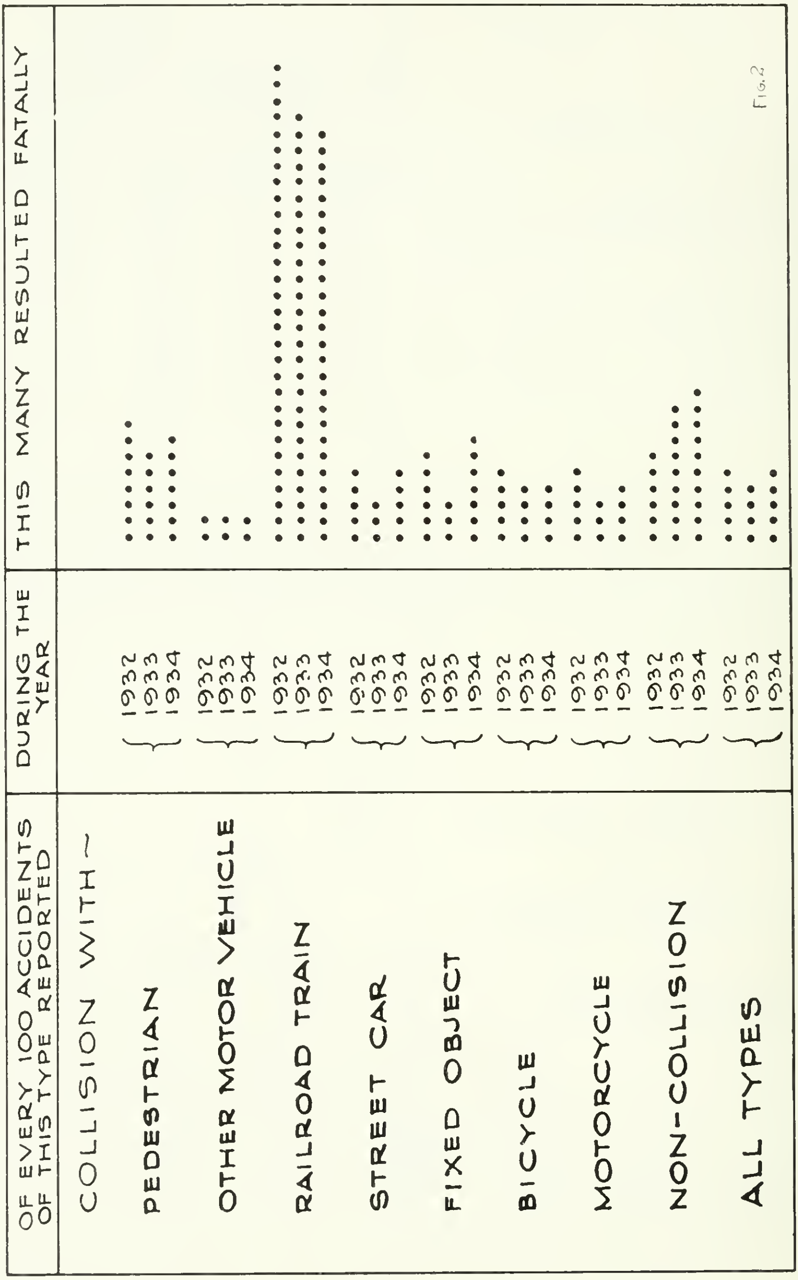


TABLE No. 3—FATAL* ACCIDENTS CLASSIFIED ACCORDING TO TYPE OF COLLISION

	1932		1933		1934	
	No.	Per cent	No.	Per cent	No.	Per cent
Collision with:						
Pedestrian	226	49.0	170	45.7	211	44.3
Other motor vehicle	60	13.0	50	13.4	76	16.0
Horse-drawn vehicle	7	1.5	7	1.9	6	1.3
Railroad train	35	7.6	25	6.7	26	5.4
Street car	11	2.4	5	1.4	8	1.7
Other vehicles	1	.2	1	.3	2	.4
Fixed object	34	7.4	22	5.9	47	9.9
Bicycle	28	6.1	25	6.7	31	6.5
Motorcycle	9	2.0	5	1.4	7	1.5
Non-collision	44	9.5	59	15.8	61	12.8
Miscellaneous	6	1.3	3	.8	1	.2
Totals	461	100.0	372	100.0	476	100.0

All the important types of fatal motor vehicle accidents showed increases during 1934. The greatest advance was in the number of fatal accidents involving pedestrians, with an increase of 41. This type of accident continues to be the most serious, and accounted for 44.3 per cent of all fatal mishaps.

Suggesting an increase in dangerous driving were the increases of 26 in the fatal, "collision with other motor vehicle" accidents, and the advance of 25 in the number of fatal accidents involving collisions with fixed objects. Excessive speed is generally an important factor in the causation of these latter two types of accident. The factor is also in evidence in the increasing "fatal rate" of the non-collision type of accident. (See Fig. 2.)

Perhaps the most favourable feature of the 1934 experience was in the motor vehicle-railroad train group. It will be noticed that while all fatal accidents during the year increased by 3.2 per cent from the 1932 total, those involving collisions with railroad trains dropped from 35 in 1932 to 26 in 1934—a percentage decrease of 25.7. However, as may be seen by the accompanying graph, accidents of this type are much more serious from the standpoint of fatal injuries than any other type—approximately 26 resulted fatally for every 100 accidents of this class reported during 1934.

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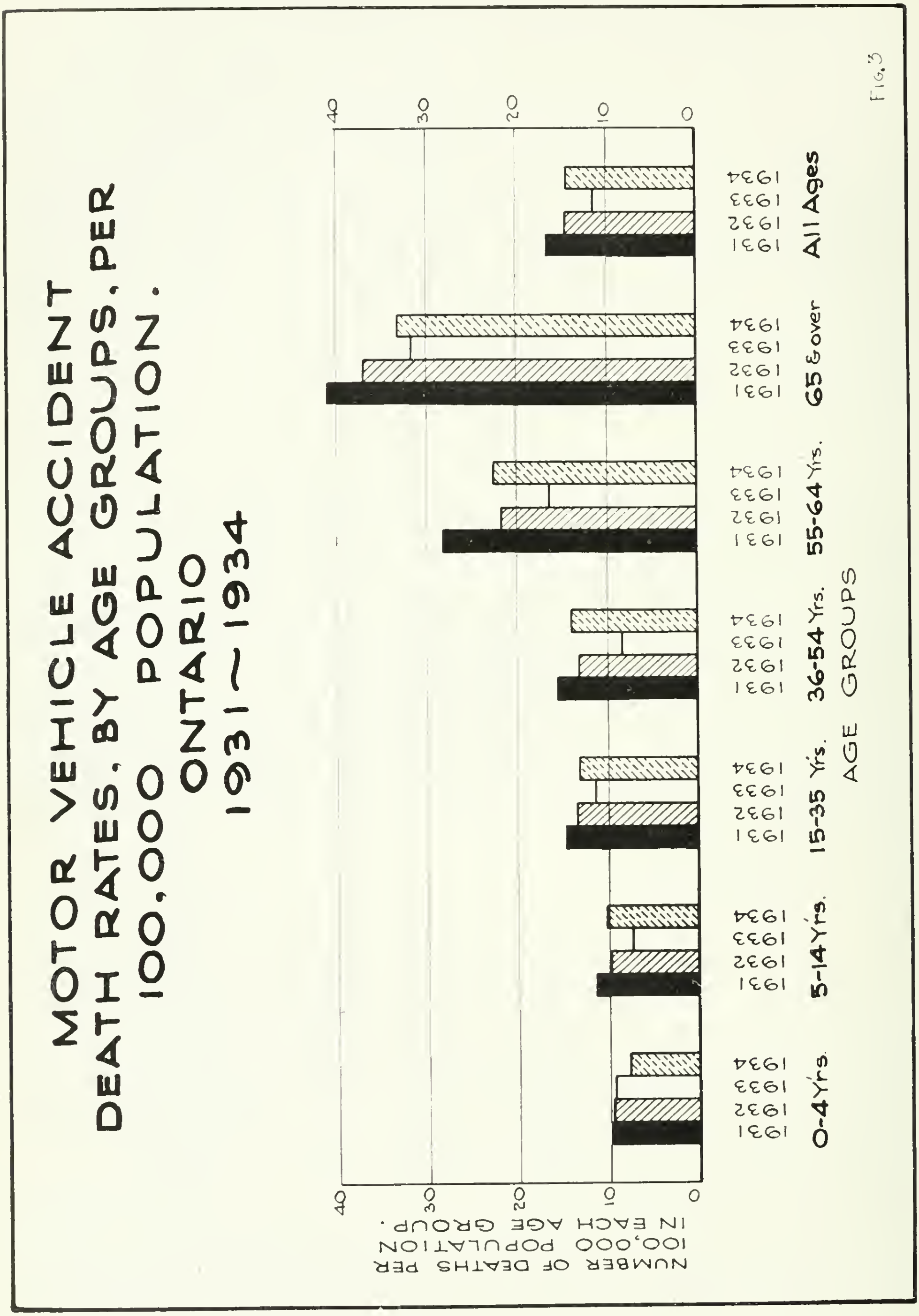
*See footnote, Table 1.



MOTOR VEHICLE ACCIDENT DEATH RATES, BY AGE GROUPS, PER 100,000 POPULATION. ONTARIO 1931—1934

Fig. 3

TABLE No. 4—NUMBER OF PERSONS FATALLY INJURED IN MOTOR VEHICLE ACCIDENTS, CLASSIFIED ACCORDING TO AGE GROUP AND TYPE OF COLLISION

	All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No	Per cent
Collision with:														
Pedestrian	211	41.2	24	96.0	54	78.2	23	14.2	30	25.6	30	50.8	50	62.5
Other motor vehicle	87	17.0	1	4.0	1	1.4	34	21.0	24	20.5	12	20.3	15	18.8
Horse-drawn vehicle	6	1.2	...	...	...	...	2	1.2	2	1.7	1	1.7	1	1.2
Railroad train	39	7.6	...	...	...	...	17	10.5	12	10.3	6	10.2	4	5.0
Street car	9	1.8	...	...	2	2.9	4	2.5	3	2.6	...	...	...	...
Other vehicles	2	.4	...	...	...	...	...	...	2	1.7	...	...	...	...
Fixed object	54	10.5	...	...	1	1.4	26	16.0	19	16.2	4	6.8	4	5.0
Bicycle	31	6.0	...	...	6	8.9	16	9.9	7	6.0	1	1.7	1	1.2
Motorcycle	9	1.8	...	...	...	...	9	5.6	...	...	...	...	...	...
Non-collision	63	12.3	...	...	5	7.2	31	19.1	17	14.5	5	8.5	5	6.3
Miscellaneous	1	.2	...	...	...	...	...	...	1	.9	...	...	...	...
Totals	512	100.0	25	100.0	69	100.0	162	100.0	117	100.0	59	100.0	80	100.0

NUMBER AND PERCENTAGE DISTRIBUTION OF VICTIMS OF FATAL ACCIDENTS, ACCORDING TO AGE GROUP AND SEX

Year	All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over		Male		Female	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1931	571	100.0	30	5.2	74	13.0	174	30.5	126	22.1	71	12.4	96	16.8	440	77.1	131	22.9
1932	502	100.0	30	6.0	65	12.9	158	31.5	107	21.3	55	11.0	87	17.3	378	75.3	124	24.7
1933	403	100.0	30	7.4	49	12.2	137	34.0	69	17.1	42	10.4	76	18.9	291	72.2	112	27.8
1934	512	100.0	25	4.9	69	13.5	162	31.6	117	22.9	59	11.5	80	15.6	393	76.8	119	23.2
Population*	...	100.0	...	9.0	...	19.0	...	34.4	...	23.5	...	7.3	...	6.8	...	50.9	...	49.1

*Percentage distribution of Ontario population by age group and sex (1931 census).

Continued on page 164.

From a comparison of Tables 3 and 4 it will be noticed that there were 76 fatal "collision with other motor vehicle" type accidents, which resulted in 87 deaths; 47 fatal "collision with fixed object" accidents, which claimed 54 lives; and 26 collisions with railroad trains, resulting in 39 deaths.

During this year there were 447 accidents, in which 1 person suffered fatal injury; 25 accidents in which 2 persons were killed; 2 accidents in which 3 persons were killed; and two motor vehicle-railroad train accidents, one of which resulted in 4 deaths and the other in 5 deaths—a total of 476 fatal accidents in which 512 lives were lost.

Twenty-four of the 25 children under 5 years of age killed, and 54 of the 69 between 5 and 14 years old, were pedestrians.

As compared with an increase of 27 per cent in the number of fatalities from the corresponding total for 1933, the number of children (under 15 years) killed advanced by 19 per cent, and adult deaths increased by 94 (29.0%). The greatest increase was found in the age group 36–54 with a total of 117 fatally injured as compared with 69 for the year 1933—a percentage increase of almost 70 per cent.

There were 393 male fatalities during 1934, as compared with 291 in the previous year. This increase of over 35 per cent was almost 7 times greater than the increase in the number of female victims.

The percentage of male victims in each age group was as follows: All ages, 76.8%; 0–4 years, 72%; 5–14 years, 68.1%; 15–35 years, 84%; 36-54 years, 82.1%; 55–64 years, 72.9%; 65 years and over, 66.2%.

The number of deaths from motor vehicle accidents during the past four years for which official figures are available, and the death rates on various bases of comparison, are shown below:

	1931	1932	1933	1934
Number of deaths	571	502	403	512
Deaths per 10,000 vehicles registered	99.8	92.0	75.1	91.0
Deaths per 100,000 population	16.6	14.5	11.4	14.4
Deaths per 10,000,000 gallons of gasoline consumed	25.6	23.0	19.0	21.9

Since difficulty is frequently experienced in accurately classifying the victims under the types of accident, the following table shows the proper classification, together with corresponding data for 1931, 1932 and 1933:

CLASSIFICATION OF VICTIMS FATALLY INJURED

	1931	1932	1933	1934
Drivers	122	100	65	109
Passengers	152	125	121	140
Pedestrians	255	230	175	215
Others (persons in horse-drawn vehicles, etc.)	4	8	7	6
Bicyclists	18	27	25	31
Motorcycle drivers	15	10	6	7
Motorcycle passengers	5	2	4	4
Total	571	502	403	512

The increasing number of bicyclists fatally injured in motor vehicle accidents is indicated above. Victims of this type comprised 3.1 per cent of the total in 1931, and 6.1 per cent in 1934. The number of drivers killed also showed an exceptionally large advance during the year. The increase in victims of this type amounted to 67.7 per cent as compared with a 19.2 per cent advance in all other classifications.

TABLE No. 5—PERSONAL INJURY ACCIDENTS,* CLASSIFIED ACCORDING TO TYPE OF COLLISION

	1932		1933		1934	
	No.	Per cent	No.	Per cent	No.	Per cent
Collision with:						
Pedestrian	2,600	42.1	2,527	42.3	2,783	41.1
Other motor vehicle	1,661	26.9	1,552	26.0	1,945	28.8
Horse-drawn vehicle	141	2.3	130	2.2	136	2.0
Railroad train	53	.8	41	.7	47	.7
Street car	105	1.7	84	1.4	82	1.2
Other vehicles	11	.2	4	.1	7	.1
Fixed object	346	5.6	385	6.5	399	5.9
Bicycle	567	9.2	634	10.6	792	11.7
Motorcycle	170	2.7	161	2.7	142	2.1
Non-collision	489	7.9	425	7.1	412	6.1
Miscellaneous	39	.6	22	.4	18	.3
Totals	6,182	100.0	5,965	100.0	6,763	100.0

Eight of the eleven types of "personal injury" accidents classified showed increases from corresponding types during the previous year, the most important being the "collision with other motor vehicle" type with an advance of 25.3 per cent; collisions with bicycles, 24.9 per cent increase; and the "collision with pedestrian" class of mishap with a percentage gain of 10.1 per cent. The increase in all types amounted to 13.4 per cent.

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*This table shows the number of accidents in which persons suffered non-fatal injuries, and not the number of persons injured.

TABLE No. 6—NUMBER OF PERSONS NON-FATALLY INJURED, CLASSIFIED ACCORDING TO AGE GROUP AND TYPE OF COLLISION

Type of Collision	All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over		Not Stated	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Pedestrian	2,922	32.49	364	83.3	1,036	70.00	484	14.18	447	23.6	197	34.8	234	52.2	160	21.2
Other motor vehicle	3,219	35.80	52	11.9	176	11.89	1,471	43.09	841	44.5	222	39.2	125	27.9	332	44.0
Horse-drawn vehicle	200	2.23	5	1.1	13	.88	77	2.26	55	2.9	20	3.5	18	4.0	12	1.6
Railroad train	82	.91	...	...	1	.07	44	1.29	17	.9	7	1.2	3	.7	10	1.3
Street car	115	1.28	...	...	5	.34	51	1.49	37	2.0	4	.7	4	.9	14	1.9
Other vehicles	7	.08	...	...	...	...	3	.09	2	.1	1	.2	...	...	1	.1
Fixed object	674	7.50	10	2.3	24	1.62	350	10.25	168	8.9	42	7.4	18	4.0	62	8.2
Bicycle	827	9.20	...	...	195	13.18	418	12.24	119	6.3	16	2.8	15	3.4	64	8.5
Motorcycle	166	1.85	...	...	2	.13	136	3.98	10	.5	...	...	1	.2	17	2.3
Non-collision	754	8.39	6	1.4	27	1.82	365	10.69	191	10.1	56	10.0	29	6.5	80	10.6
Miscellaneous	24	.27	...	...	1	.07	15	.44	4	.2	1	.2	1	.2	2	.3
Totals	8,990	100.00	437	100.0	1,480	100.00	3,414	100.00	1,891	100.0	566	100.0	448	100.0	754	100.0

NUMBER AND PERCENTAGE DISTRIBUTION OF PERSONS INJURED, ACCORDING TO AGE GROUP AND SEX

Year	All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over		Not Stated		Male		Female	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1932	8,231	100.0	419	5.8	1,388	19.1	3,018	41.7	1,612	22.3	459	6.3	347	4.8	998	*	5,148	62.5	3,083	37.5
1933	7,877	100.0	452	6.3	1,411	19.6	2,828	39.2	1,636	22.7	502	6.9	386	5.3	662	*	4,933	62.6	2,944	37.4
1934	8,990	100.0	437	5.3	1,480	18.0	3,414	41.4	1,891	23.0	566	6.9	448	5.4	754	*	5,679	63.2	3,311	36.8

*Not included when computing percentages.

From Table No. 6 it will be observed that 83.3 per cent of the children in the age group "0–4 years" and 70 per cent of those between 5 and 14 years, were pedestrians, whereas about 4 of every 9 injured in the age group 15–35 and 36–54 suffered injury in the "collision with other motor vehicle" type of accident.

More than half (52.2%) of the injured in age group "65 and over", were pedestrians. Collisions between motor vehicles (Type No. 2 accidents) accounted for 35.8 per cent of the non-fatal injuries, but only 17 per cent of the deaths. This type of accident resulted in 689 (27.2%) more injuries than in the previous year. Collisions with bicycles caused 178 (27.4%) more injuries as compared with an advance of 14.1 per cent in all injuries.

Almost one-quarter (23.3%) of the persons injured during 1934 were children under 15 years of age. This percentage was slightly less, however, than in 1933, when 25.9 per cent of the injuries were suffered by children.

In contrast to an increase of 14.1 per cent in the number of non-fatal injuries, male victims (who comprised 63.2% of the total) were 15.1 per cent above last year's total, and the number of females 12.5 per cent above. The percentage of female victims has dropped slightly during each of the last three years.

For every child killed under the age of 5, there were 17 injured in motor vehicle accidents. Twenty-one were injured on the average for every child killed in the age group 5-14. Among the victims between the ages of 15 and 35, there were 22 hurt for every fatality. Of those in age group 36-54, the ratio was one death for every 16 injured, while among persons between 55 and 64 years, the injured averaged 10 for every death. Victims over 65 years had the highest death rate—six being injured for every death in this age class.

The classification of victims injured during each of the past three years is shown below:

	1932	1933	1934	Injured Rate*
Drivers	1,546	1,423	1,630	15
Passengers	3,041	2,827	3,208	23
Pedestrians	2,737	2,646	2,979	14
Others (persons in horse-drawn vehicles, etc.)	113	121	151	25
Bicyclists	572	649	822	26
Motorcycle drivers	175	163	163	23
Motorcycle passengers	47	48	37	9
Totals	8,231	7,877	8,990	18

In the order given, the greatest increases were found in the number of passengers, pedestrians, drivers and bicyclists injured. It will also be noticed that the "fatal rate" was considerably higher (or the "injured rate" was lower) for drivers of motor vehicles than for passengers. 'This is due to the frequent occurrence of accidents in which several passengers are injured (whereas, of course, only one driver can be injured for each vehicle involved), and does not necessarily prove that the position of the man behind the wheel is more hazardous.

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*Number injured, on an average, for every victim of the same classification killed during 1934.

TABLE No. 7—VICTIMS OF MOTOR VEHICLE ACCIDENTS, DETAILED ACCORDING TO THE TYPE OF ACCIDENT IN WHICH THE DEATH OR INJURY WAS SUFFERED

	All Victims		Drivers		Passengers		Pedestrians		Others*		Bicyclists		Motorcycle Drivers		Motorcycle Passengers	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Collision with:																
Pedestrian	3,133	32.96	3	.2	10	.30	3,117	97.59	...	...	...	...	2	1.2	1	2.4
Other motor vehicle	3,306	34.78	1,077	61.9	2,165	64.67	62	1.94	1	.6	1	.1	...	...	...	...
Horse-drawn vehicle	206	2.17	19	1.1	38	1.13	1	.03	148	94.3	...	...	...	...	...	...
Railroad train	121	1.27	62	3.6	59	1.76	...	...	...	...	...	...	...	...	...	...
Street car	124	1.31	47	2.7	66	1.97	6	.19	2	1.3	...	...	3	1.8	...	...
Other vehicles	9	.10	2	.1	2	.06	...	...	5	3.2	...	...	...	...	...	...
Fixed object	728	7.67	275	15.8	438	13.08	6	.19	...	...	1	.1	8	4.7	...	...
Bicycle	858	9.03	2	.1	3	.09	1	.03	...	...	851	99.8	1	.6	...	...
Motorcycle	175	1.85	...	...	1	.03	...	...	...	...	...	...	140	82.3	34	82.9
Non-collision	817	8.60	247	14.2	548	16.37	1	.03	...	...	...	...	15	8.8	6	14.7
Miscellaneous	25	.26	5	.3	18	.54	...	...	1	.6	...	...	1	.6	...	...
Totals	9,502	100.00	1,739	100.0	3,348	100.00	3,194	100.00	157	100.0	853	100.0	170	100.0	41	100.0

*Passengers in horse-drawn vehicles, or in other vehicles not motor vehicles or bicycles.

From the above table it will be seen that 61.9 per cent of the injuries (fatal and non-fatal) to drivers were suffered in the collision with "other motor vehicle" type of accident. Almost 65 per cent of the passengers suffered injury in mishaps of this class. The non-collision type also proved to be more hazardous for passengers than for drivers. Collisions with fixed objects, on the other hand, accounted for 15.8 per cent of the injuries to drivers as compared with 13.08 per cent for passengers.

TABLE No. 8—TYPES OF ACCIDENT INVOLVING ONLY PROPERTY DAMAGE IN EXCESS OF $50.00

	1932		1933		1934	
	No.	Per cent	No.	Per cent	No.	Per cent
Collision with:						
Other motor vehicle	1,834	72.55	1,641	71.43	1,746	72.6
Horse-drawn vehicle	99	3.92	56	2.44	59	2.4
Railroad train	30	1.19	25	1.09	28	1.2
Street car	113	4.47	87	3.79	85	3.5
Other vehicles	6	.24	4	.18	5	.2
Fixed object	216	8.54	246	10.71	260	10.8
Bicycle	1	.04	1	.04	....	.....
Motorcycle	11	.43	11	.48	10	.4
Non-collision	170	6.72	164	7.14	142	5.9
Miscellaneous	48	1.90	62	2.70	71	3.0
Totals	2,528	100.00	2,297	100.00	2,406	100.0

Approximately one of every four accidents reported during 1934 involved property damage in excess of $50.00 only. Of the total of 2,406 accidents, which represented an increase of 4.7 per cent from the previous year's total, almost 73 per cent were of the collision with "other motor vehicle" type. Collisions with fixed objects have become more frequent in each successive year since 1931—the first year reports were collected—whereas non-collision (overturning, running off roadway, etc.) accidents appear to be occurring less often each year.

TABLE No. 9—ACTIONS OF DRIVERS

Action	In All Accidents		In Fatal Accidents		In Personal Injury Accidents		In Property Damage Only Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Speed too fast for road or traffic conditions..	1,009	33.0	66	39.0	596	33.3	347	31.6
On wrong side of road..	817	26.7	37	21.9	436	24.4	344	31.4
Did not have right of way...............	384	12.6	6	3.5	226	12.6	152	13.9
Cutting in............	119	3.9	4	2.4	72	4.0	43	3.9
Passing standing street car...............	23	.7	1	6	22	1.2	....	....
Passing on curve or hill.	24	.8	1	6	15	.8	8	.7
Passing on wrong side..	17	.6	....	....	10	.6	7	.6
Failed to signal.......	102	3.3	....	....	63	3.5	39	3.6
Car ran away—no driver	25	.8	3	1.8	10	.6	12	1.1
Drove off roadway....	537	17.6	51	30.2	341	19.0	145	13.2
Totals...........	3,057	100.0	169	100.0	1,791	100.0	1,097	100.0

In giving consideration to the above table, it should be understood that most accidents involve more than one circumstance which contributes to the causation of the accident and in the face of conflicting testimony from the parties implicated, it is frequently impossible to determine, without a court hearing, the definite cause of the accident. Since it is not practicable to follow through the magistrates' and civil court, to the ultimate conclusion of all accidents, it is necessary that the statistics be compiled from the primary reports and in order that the information derived may be of real value only those accidents in which a cause was definitely established have been included, and the cause as shown is not necessarily the only factor, but in each instance was the essential factor which made avoidance of the accident impossible.

In the final analysis, all the above illegal or dangerous actions of drivers may be attributed to selfishness and lack of courtesy, lack of attention, or poor judgment. The actual actions which brought about the accidents are no more than the visible evidence of these personal factors.

Despite the claims of many that "speed in itself is not dangerous", it will be seen that excessive speed for road or traffic conditions is listed as the most common improper action. This classification provides an example of the situation referred to above. In almost all these cases there were other circumstances which contributed to the causation of the accident, but, had speed been reduced, all the other factors could have been overcome. Speed, in itself, may not be dangerous, but speed, in traffic or on any highway, is definitely a factor of tremendous importance, and it adds also seriously to the consequences of accidents. Thus, while excessive speed was the major fact in about one-third of all accidents reported, it held the same position in almost forty per cent of the fatal accidents. Excessive speed is merely selfishness—an expression of a desire to reach a destination regardless of the other users of the highway who may be in just as great a hurry.

The other faults shown in the table are in the same category. Cutting in, road hogging or driving on the wrong side of the road, failure to signal, passing on the wrong side or on curves or hills, are all evidence of discourtesy and lack of judgment which cannot fail to result in accident if persisted in in modern traffic. The traffic flow of today can only continue safely when everyone plays the game. At high speeds the trust and dependence which each driver places in all others is tremendous. When cars approach each other at forty or fifty miles an hour, the gap between is being closed at a rate of from eighty to one hundred miles per hour, or well over one hundred feet per second; unless both drivers are alert, unless both play the game, accident is inevitable.

TABLE No. 10—ACTIONS OF PEDESTRIANS INVOLVED IN ACCIDENTS

Action	Collision with Pedestrian Accidents					
	Total		Fatal		Non-fatal	
	No.	Per cent	No.	Per cent	No.	Per cent
Crossing at intersection:						
(a) with signal	63	2.10	1	.47	62	2.23
(b) against signal	121	4.04	3	1.42	118	4.24
(c) no signal	475	15.87	27	12.80	448	16.10
(d) diagonally	34	1.14	2	.95	32	1.15
Crossing between intersections	587	19.61	35	16.59	552	19.83
Waiting for, or getting on or off street car	59	1.97	2	.95	57	2.05
Standing in safety zone	1	.03	....	....	1	.04
Getting on or off other vehicle	29	.97	....	....	29	1.04
Children playing in street	839	28.02	48	22.75	791	28.42
At work in roadway	91	3.04	15	7.11	76	2.73
Riding or hitching on vehicle	53	1.77	6	2.84	47	1.69
Walking on highway	163	5.44	33	15.64	130	4.67
Coming from behind parked vehicle or object	324	10.82	17	8.06	307	11.03
Crossing highway	84	2.81	13	6.16	71	2.55
On sidewalk	71	2.37	9	4.26	62	2.23
Totals	2,994	100.00	211	100.00	2,783	100.00

While it is quite customary for pedestrians and motorists to blame each other for all the accidents in which they are involved, the above table will show that the blame is fairly evenly divided, particularly if it is borne in mind that children, being irresponsible, the motorist must accept a considerable responsibility for their protection.

Carelessness in walking is quite as serious as carelessness in driving, and the education of pedestrians is every bit as important as the education of drivers.

The figures in the above table may, however, show an inaccurate picture unless all the factors are considered. For instance, it may be seen that more than half as many pedestrians crossing intersections with a signal in their favour were involved in accident as were those crossing against the signal. It would therefore appear at first glance that crossing against the signal is less than twice as dangerous as crossing with the signal. Again, it will be seen that more accidents happen at intersections than between corners, and here it would seem that to cross in the middle of the block would be safer. But both these conclusions would be wrong. Surveys show that after years of repeated warnings to "cross streets at intersections" and to "cross on the green light only", more than ninety per cent of the pedestrians obey these instructions, so that it would seem that it is actually about eight times more dangerous to cross in mid-block.

Children playing on the roadway continue to present a major problem, and the solution still seems distant. There are so many factors involved—such as the irresponsibility of children, the availability of playground space, the laxity of parents and the degree of responsibility they must bear, the responsibility of motorists—that it will require some time before a satisfactory adjustment will be possible. Most serious, perhaps, is the conflict between the responsibility of parents and the irresponsibility of their children. With children of pre-school age the parents are primarily responsible, yet, even here, it is impossible under certain circumstances either to provide proper play places or to fully supervise play in less restricted and unprotected areas. With the children of school age the difficulty of adequate supervision suggests the need for continued and increased development of habits of safe behaviour through educational activities.

In the face of these difficulties, it is obvious that the motorist cannot shirk his responsibility. He must watch out for children and take every possible precaution for their safety. He must shoulder the burden, at least in part, of their irresponsibility.

TABLE No. 11—SEX OF DRIVERS

	In All Accidents		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Male	12,872	93.7	537	94.2	8,370	93.4	3,965	94.4
Female	859	6.3	33	5.8	589	6.6	237	5.6
Totals	13,731	100.0	570	100.0	8,959	100.0	4,202	100.0

In contrast to an increase of 13.1 per cent from the number of drivers involved in reported accidents during 1934, the total of male operators advanced by 13.7 per cent, and female drivers involved increased in number by 4.5 per cent.

The total of male drivers in fatal accidents showed a gain of 36.3 per cent, while female drivers in accidents of this nature were 26.9 per cent greater in number than during 1933.

The ratio of men drivers in fatal accidents to the total number of men in all accidents was about .8 per cent higher than the corresponding ratio for female operators.

TABLE No. 12—AGES OF DRIVERS

Age Group	In All Accidents		In Fatal Accidents		In Personal Injury Accidents		In Property Damage Only Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Under 18 years........	205	1.6	7	1.3	128	1.5	70	1.9
18 to 24 years........	2,877	22.8	135	25.3	1,920	23.0	822	22.0
25 to 40 years........	5,789	45.9	226	42.4	3,798	45.5	1,765	47.3
41 to 54 years........	2,758	21.8	121	22.7	1,845	22.1	792	21.2
55 to 64 years........	731	5.8	31	5.8	480	5.7	220	5.9
65 years and over.....	260	2.1	13	2.5	184	2.2	63	1.7
Not stated...........	1,111	*	37	*	604	*	470	*
Totals...........	13,731	100.0	570	100.0	8,959	100.0	4,202	100.0

The fatal accident experience (ratio of drivers in fatal accidents to drivers in all accidents) of operators in the age group 18 to 24 was 13 per cent worse than the average for all drivers; for drivers over 65 years of age the ratio was about 20 per cent above average. On this basis of comparison, these two age groups had the worst accident experience during 1934.

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*Not included when computing percentages.

ACCIDENT REPEATERS

The records of this Division disclose the following information of drivers involved in two or more accidents during the period September 1, 1930, to December 31, 1934:

3,136 "repeaters" (5.5% of the 56,497 drivers in reported accidents) were involved in 6,635 accidents (16.8% of total number—39,467—reported).

Of the 6,635 accidents, 466 (7.02%) occurred during the last four months of 1930; 1,494 (22.51%) happened in 1931; 1,553 (23.41%) in 1932; 1,486 (22.40%) in 1933; and 1,636 (24.66%) occurred during the year 1934.

The responsibility for the 6,635 accidents was apportioned as follows:

2,201 (33.17%) were attributed to improper actions on the part of the "repeater";
1,821 (27.45%) were attributed to improper actions of the other driver or drivers implicated;
1,502 (22.63%) were the result of improper actions of other persons (bicyclists, pedestrians, etc.);
1,111 (16.75%) of the accidents—responsibility undetermined.

Of the 3,136 "repeaters":

2,811 were involved in 2 reported accidents during the period;
292 were involved in 3 reported accidents during the period;
29 were involved in 4 reported accidents during the period;
3 were involved in 5 reported accidents during the period;
1 was involved in 6 reported accidents during the period.

During 1934:

1,367 "repeaters" (10.0% of the 13,731 drivers involved in accidents during 1934) were implicated in 1,636 accidents (17.0% of the accidents reported).

Of these 1,367 "repeaters" involved during 1934:

1,112 were involved in 1 accident during 1934;
243 were involved in 2 accidents during 1934;
10 were involved in 3 accidents during 1934;
2 were involved in 4 accidents during 1934.

TABLE No. 13—DRIVING EXPERIENCE OF OPERATORS IN ACCIDENTS

Experience	No. of Drivers in All Accidents		In Fatal Accidents		In Personal Injury Accidents		In Property Damage Only Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Less than three months	124	1.3	6	1.8	93	1.4	25	.9
Three to six months	66	.7	....	....	45	.7	21	.7
Six to twelve months	47	.5	2	.6	30	.5	15	.5
One to four years	1,887	19.4	64	19.2	1,272	19.7	551	18.8
Five years or more	7,583	78.1	262	78.4	5,007	77.7	2,314	79.1
Not stated	2,434	*	86	*	1,324	*	1,024	*
Totals	12,141	100.0	420	100.0	7,771	100.0	3,950	100.0

Of 9,707 drivers whose experience behind the wheel was stated, 78.1 per cent had been driving for five years or more, and an additional 19.4 per cent claimed an operating experience of from one to four years. In other words, 97.5 per cent of the drivers in all accidents, and 97.6 per cent of those involved in fatal mishaps had more than a year's driving experience.

The ratio of drivers, with less than three months' experience, in fatal accidents for every 100 in all accidents was, however, 37.1 per cent higher than the corresponding rate for drivers with more than 5 years' experience.

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*Not included in percentage computation.

TABLE No. 14—CONDITION OF DRIVERS INVOLVED

Condition	In All Accidents		In Fatal Accidents		In Personal Injury Accidents		In Property Damage Only Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Intoxicated	155	1.1	17	3.0	87	1.0	51	1.2
Physical defect	38	.3	1	.2	23	.2	14	.3
Extreme fatigue	107	.8	6	1.0	69	.8	32	.8
Normal	13,431	97.8	546	95.8	8,780	98.0	4,105	97.7
Totals	13,731	100.0	570	100.0	8,959	100.0	4,202	100.0

Serious though intoxication, physical defects and fatigue are, these figures show conclusively that it is carelessness on the part of the normal driver which is responsible for almost all accidents. The sooner the average driver rids his mind of the notion that drunks and dare-devils cause all the accidents, and develops a realization of the fact that a single lapse may ruin a lifetime record of care and safety, the sooner will our accident problem cease to trouble us.

It must not be assumed, however, that this is in any sense an apology for the drunken driver. But it is necessary to point out the dangers besetting those in full possession of their faculties. Mere temperance does not assure safety.

Nevertheless, as an individual, the drunken driver is the greatest menace on our highways, and during the past year the courts have shown an ever-increasing appreciation of this fact. One of the difficulties faced by law enforcement authorities has been the practical impossibility of defining drunkenness, and border-line cases were too often given the benefit of the doubt. This weakness has been overcome to a large extent by the imposition by many magistrates of much more severe penalties upon convictions for reckless driving arising out of cases in which alcohol was a factor. In other words, whether drunk or not, the drinking driver faces more severe punishment. Suspension of driving privileges for lengthy periods has been an important feature of this increased punishment and the more drastic use of the power to suspend licenses is expected to prove highly effective in minimizing the danger from drinking drivers by keeping such individuals off the highway.

It should be noted that drunken drivers were involved in a larger proportion of fatal accidents than in other types. This is probably due to the failure of such drivers to take steps to offset the danger when an emergency arose. With judgment unbalanced by an excess of stimulant, they have been unable to adjust their speed or direction quickly enough to reduce the force of impact, and consequently were involved in these serious accidents much more frequently, comparatively, than those in normal condition.

Of those suffering from physical defects other than intoxication, little can be said. Persons suffering such defects are required to demonstrate conclusively their ability to compensate for deficiencies before driving licenses are issued, and the above figures do not in any sense indicate that the accident resulted because of the physical defect of the operator involved. They do, however, give further evidence of the fact that it is to the normal, healthy driver we must look for the real solution of our accident problem.

TABLE No. 15—RESIDENCE OF DRIVERS INVOLVED IN ACCIDENTS

Place of Residence	Number of Drivers							
	In All Accidents		In Fatal Accidents		In Personal Injury Accidents		In Property Damage Only Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Ontario	13,028	94.88	541	94.9	8,535	95.25	3,952	94.05
Quebec	101	.74	6	1.1	39	.44	56	1.33
Other provinces	27	.19	....	....	21	.24	6	.14
Michigan	217	1.58	9	1.6	136	1.53	72	1.71
Ohio	29	.21	1	.2	17	.19	11	.26
New York	213	1.55	6	1.1	138	1.54	69	1.64
Illinois	19	.14	2	.3	10	.11	7	.17
Massachusetts	6	.04	1	.2	3	.03	2	.05
Pennsylvania	26	.19	2	.3	17	.19	7	.17
Other states	64	.47	2	.3	42	.47	20	.48
All others	1	.01	....	....	1	.01	....	....
Total	13,731	100.00	570	100.0	8,959	100.00	4,202	100.00

In contrast with an advance of 13.1 per cent in the total number of drivers involved, Ontario drivers increased from the 1933 total by 14.2 per cent, and non-resident operators decreased in number by 4.0 per cent.

The "fatal rate" (number of drivers in fatal accidents for every 100 in all mishaps) for Ontario drivers during 1934 was 4.15, as compared with 3.4 in 1933, and 3.9 in 1932. The comparative rates for non-residents were: 4.12 in 1934, 4.5 in 1933, and 6.2 in 1932. On this basis, the non-resident experience showed an improvement in each of the three years.

TABLE No. 16—TYPES OF VEHICLES INVOLVED IN REPORTED ACCIDENTS

Types of Vehicle	1932		1933		1934	
	No.	Per cent	No.	Per cent	No.	Per cent
Passenger car	10,907	80.20	10,107	79.71	11,246	79.19
Commercial vehicle	1,991	14.64	1,971	15.54	2,332	16.42
Taxicab	218	1.60	176	1.39	227	1.60
Bus	104	.77	75	.59	82	.57
Motorcycle	282	2.07	262	2.07	239	1.67
Trailer	42	.31	69	.55	65	.46
All others	6	.04	14	.11	7	.05
Not stated	50	.37	5	.04	6	.04
Totals	13,600	100.00	12,679	100.00	14,204	100.00

As compared with an increase of 7.8 per cent in the number of commercial vehicles registered, vehicles of this type in accidents advanced by 18.3 per cent, and the number involved in fatal accidents increased by 72.4 per cent.

Passenger cars comprised 79.19 per cent of the vehicles in all accidents, and 70.2 per cent of those in fatal accidents. There were 10.1 per cent more vehicles of this class in accidents during 1934 than there were in 1933, and the total number involved in fatal accidents advanced by 20.5 per cent. Passenger car registrations showed a gain of 3.8 per cent from the 1933 total.

About 58 per cent of the vehicles in all accidents, and 60 per cent of those in fatal accidents were covered by public liability and property damage insurance.

TABLE No. 17—MOTOR VEHICLE ACCIDENTS SEGREGATED ACCORDING TO URBAN* AND RURAL ROADS

	1932		1933		1934	
	All Accidents	Fatal Accidents	All Accidents	Fatal Accidents	All Accidents	Fatal Accidents
Urban	5,571	193	5,218	150	5,792	194
Rural	3,600	268	3,416	222	3,853	282
Totals	9,171	461	8,634	372	9,645	476

As compared with an increase from 1933 of 11.7 per cent in the total number of accidents reported, urban mishaps advanced by 11.0 per cent, and rural accidents showed an increase of 12.8 per cent. Urban and rural fatal accidents were, respectively, 29.3 per cent and 27.0 per cent above the corresponding totals for 1933, while the percentage increase in all fatal accidents amounted to 27.0.

The percentage fatal of every 100 accidents reported during the past three years was as follows:

	1932	1933	1934
Urban	3.5	2.9	3.3
Rural	7.4	6.5	7.3
Totals	5.0	4.3	4.9

The higher "fatal rate" on the rural roads for each of the three years indicates the greater seriousness from the standpoint of fatal injuries of the accidents so classified.

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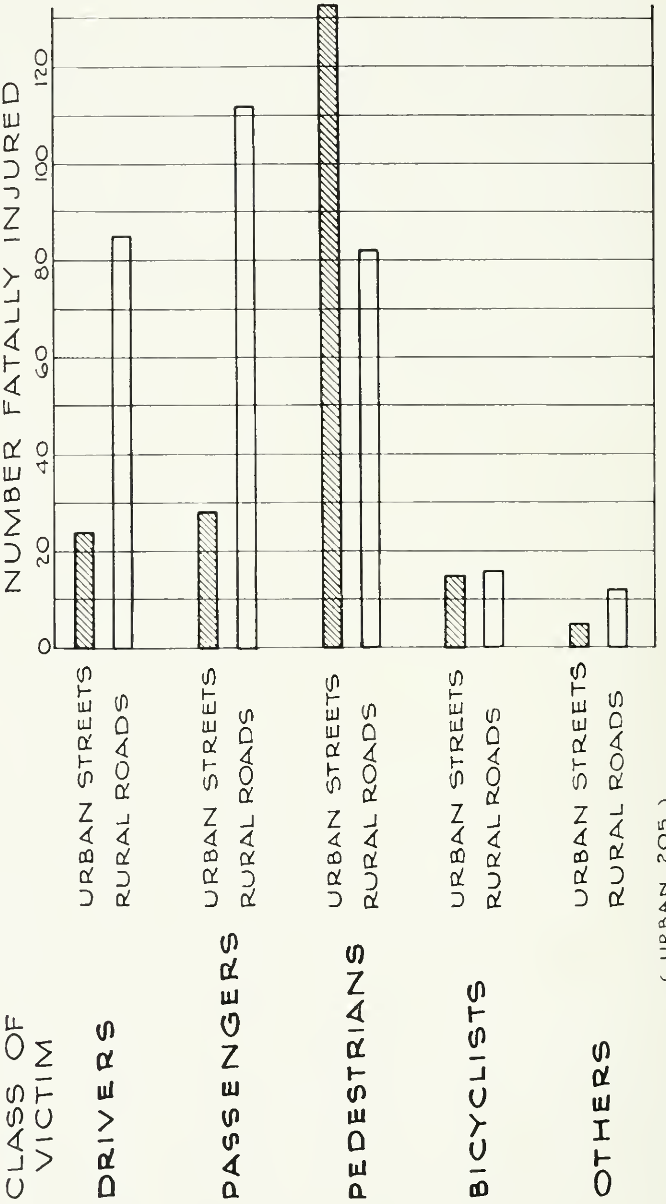
*Urban accidents are those which occur on city, town or village streets. Rural accidents include those on the King's highway, county road and township roads. The main provincial roads in North Ontario are classified as county roads.

CLASSIFICATION OF VICTIMS FATALLY INJURED IN URBAN AND RURAL ACCIDENTS 1934



TOTAL DEATHS { URBAN 205 / RURAL 307 } 512

FIG. 4

TABLE No. 18—NUMBER OF ACCIDENTS, FATALITIES, PERSONS INJURED, AND AMOUNT OF PROPERTY DAMAGE BY TYPE OF ACCIDENT AND BY URBAN AND RURAL ROADS

	Accidents		Fatalities*		Persons Injured		Amount of Property Damage	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Collision with:								
Pedestrian	2,506	488	129	82	2,486	436	$ 3,453	$ 2,999
Other motor vehicle	1,863	1,904	19	68	1,387	1,832	230,120	374,333
Horse-drawn vehicle	75	126	...	6	56	144	8,050	12,487
Railroad train	45	56	12	27	48	34	11,023	18,310
Street car	165	10	9	...	106	9	23,931	1,145
Other vehicles	1	13	...	2	1	6	135	1,612
Fixed object	261	445	9	45	237	437	33,163	92,906
Bicycle	683	140	15	16	685	142	3,921	2,131
Motorcycle	121	38	5	4	128	38	4,868	2,696
Non-collision	71	544	7	56	75	679	5,455	87,785
Miscellaneous	1	89	...	1	1	23	15	22,184
Totals	5,792	3,853	205	307	5,210	3,780	$324,134	$618,588

The hazards peculiar to urban and to rural roads are indicated in Table 18. It will be noted that the "collision with pedestrian" type is much the most serious urban type from the standpoint of fatal and non-fatal injuries. These collisions made up 43.2 per cent of the accidents in all cities, towns and villages; and collisions with other motor vehicles and bicycles followed in frequency with 32.2 per cent and 11.8 per cent of the total reported. About seven of every eight urban accidents were included within these three classifications.

On the rural roads, collisions between motor vehicles accounted for a larger share of accidents than any other class of accident. Non-collision (over-turning, running into ditch, etc.) mishaps were next in number, followed by the "collision with pedestrian" and "collision with fixed object" types. Almost 88 per cent of the rural accidents were classified under these four headings.

The greater severity of rural accidents will be observed. For every hundred urban "collision with pedestrian" accidents there were 5.1 deaths, while the corresponding ratio for rural accidents of this type was 16.8. There was 1 death for every 100 urban "collision with other motor vehicle" accidents, while rural mishaps of this type claimed 3.6 lives for every hundred reported.

Rural accidents also resulted in a much higher property damage loss per accident than urban mishaps.

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*Refers to number of persons fatally injured, and not to the number of fatal accidents as in the previous table.

TABLE No. 19—ACCIDENTS CLASSIFIED ACCORDING TO LOCATION

Location	Accidents		Fatalities		Personal Injury		Amount of Property Damage	
	No.	Per cent	No.	Per cent	No.	Per cent	Amt.	Per cent
Cities	5,196	53.9	157	30.7	4,654	51.7	$270,480	28.7
Towns	496	5.1	41	8.0	474	5.3	43,081	4.6
Villages	100	1.0	7	1.4	82	.9	10,573	1.1
King's Highways	2,512	26.1	159	31.0	2,380	26.5	431,109	45.7
County roads	906	9.4	97	18.9	951	10.6	144,800	15.4
Township roads	435	4.5	51	10.0	449	5.0	42,679	4.5
Totals	9,645	100.0	512	100.0	8,990	100.0	$942,722	100.0

From the above table it will be seen that two-fifths of the accidents were on the rural (King's, county and township) highways, and these accidents resulted in approximately three of every five deaths and almost two-thirds of the total property damage. The greater seriousness of rural mishaps is also indicated by the fact that the average property damage per rural accident ($160.55) was 187 per cent. higher than the average loss per urban accident.

As compared with the increase from 1933 of 11.7 per cent in the total number of accidents reported, urban accidents increased by 11.0 per cent and those on the rural roads from 3,416 in 1933 to 3,853 in 1934, or a percentage advance of 12.8. The increases by more detailed locations were: cities, 9.2 per cent; towns, 32.6 per cent; villages, 14.9 per cent; King's Highways, 8.4 per cent; county roads, 38.3 per cent. Township road accidents were slightly (1.8%) fewer in number than during 1933.

In contrast with a gain of 27 per cent in the death total, fatalities from city mishaps increased by 48.1 per cent, and "county road" deaths advanced from 63 in 1933 to 97 in 1934—a percentage increase of 54.0. Under "county roads" are included the main provincial roads of Northern Ontario.

TABLE No. 20—ONTARIO FATAL AND NON-FATAL ACCIDENTS, CLASSIFIED BY COUNTY AND IN ORDER OF MAGNITUDE—1934

County*	Fatal	Non-fatal	County Total	Per cent of Total	Cumulative Total†
1. York	102	2,678	2,780	38.39	38.39
2. Wentworth	23	689	712	9.83	48.22
3. Middlesex	22	373	395	5.46	53.68
4. Essex	24	342	366	5.05	58.73
5. Carleton	17	192	209	2.89	61.62
6. Welland	17	175	192	2.66	64.28
7. Lincoln	8	163	171	2.36	66.64
8. Simcoe	16	118	134	1.86	68.50
9. Wellington	5	127	132	1.83	70.33
10. Brant	6	119	125	1.73	72.06
11. Kent	13	109	122	1.69	73.75
12. Thunder Bay	15	104	119	1.64	75.39
13. Waterloo	8	100	108	1.49	76.88
14. Oxford	8	99	107	1.48	78.36
15. Peel	10	91	101	1.40	79.76
16. Ontario	10	89	99	1.37	81.13
17. Halton	5	83	88	1.22	82.35
18. Hastings	4	83	87	1.20	83.55
19. Lambton	12	69	81	1.12	84.67
20. Perth	3	62	65	.90	85.57
21. Nipissing	6	55	61	.84	86.41
22. Sudbury	4	55	59	.82	87.23
23. Leeds	5	51	56	.77	88.00
24. Frontenac	5	51	56	.77	88.77
25. Timiskaming	7	48	55	.76	89.53
26. Elgin	6	47	53	.73	90.26
27. Grey	6	45	51	.71	90.97
28. Peterborough	3	42	45	.62	91.59
29. Algoma	7	35	42	.58	92.17
30. Huron	7	34	41	.57	92.74
31. Stormont	5	35	40	.55	93.29
32. Northumberland	10	27	37	.51	93.80
33. Renfrew	5	32	37	.51	94.31
34. Muskoka	9	26	35	.48	94.79
35. Victoria	4	28	32	.44	95.23
36. Dundas	3	29	32	.44	95.67
37. Durham	8	21	29	.40	96.07
38. Lanark	3	26	29	.40	96.47
39. Haldimand	5	21	26	.36	96.83
40. Bruce	5	20	25	.35	97.18
41. Parry Sound	6	19	25	.35	97.53
42. Grenville	1	21	22	.30	97.83
43. Lennox and Addington	6	16	22	.30	98.13
44. Norfolk	5	17	22	.30	98.43
45. Cochrane	5	14	19	.26	98.69
46. Glengarry	4	14	18	.25	98.94
47. Rainy River	...	17	17	.24	99.18
48. Kenora	2	13	15	.21	99.39
49. Prescott	3	11	14	.19	99.58
50. Dufferin	2	9	11	.15	99.73
51. Prince Edward	1	10	11	.15	99.88
52. Russell	...	8	8	.11	99.99
53. Haliburton	...	1	1	.01	100.00
Totals	476	6,763	7,239	100.00	

In Table No. 20, which shows the counties and districts of Ontario grouped in order of their accident frequency, it will be noticed that, during 1934, almost 54 per cent of the accidents involving personal injury occurred in the three counties—York, Wentworth and Middlesex.

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*No accidents were reported for the District of Manitoulin.

†Cumulative total is sum of preceding county totals, e.g., 72.06% of the fatal and injury accidents occurred in first ten counties in table.

TABLE No. 21—URBAN AND RURAL ACCIDENTS, CLASSIFIED ACCORDING TO ROAD LOCATION

Location	Urban				Rural			
	All Accidents		Fatal Accidents		All Accidents		Fatal Accidents	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Street intersection	3,011	51.98	73	37.6	....	....	....	....
Between street intersections	2,411	41.63	99	51.1	....	....	....	....
Rural intersection	....	....	....	....	468	12.1	27	9.6
Straight road	....	....	....	....	2,275	59.0	164	58.1
Private driveway	132	2.28	5	2.6	184	4.8	9	3.2
Curve	126	2.17	5	2.6	462	12.0	29	10.3
Hill	49	.85	3	1.5	364	9.5	29	10.3
Railroad crossing:								
(a) Man on duty or gates	5	.09	....	....	4	.1	2	.7
(b) Automatic signal	7	.12	....	....	13	.3	1	.4
(c) Unguarded	34	.59	6	3.1	42	1.1	17	6.0
Bridge	17	.29	3	1.5	41	1.1	4	1.4
Total	5,792	100.00	194	100.0	3,853	100.0	282	100.0

Most urban accidents during 1934 happened **at** street intersections; most fatal urban accidents occurred **between** street intersections. Of the 3,011 mishaps at street corners, almost 90 per cent involved three types of collision: (1) with other motor vehicle, 42.6 per cent; (2) with pedestrian, 31.9 per cent; and (3) with bicycle, 14.6 per cent. Of the 2,411 accidents **between** street intersections, 60.8 per cent were collisions with pedestrians; 20.2 per cent were collisions with other motor vehicles; and 8.2 per cent were collisions with bicycles.

Fifty-eight and nine-tenths per cent (58.9%) of the fatal accidents at urban intersections involved motor vehicle-pedestrian collisions; 16.4 per cent involved collisions between motor vehicles; and 12.3 per cent were collisions with bicycles. Of the 99 fatal mishaps which happened between intersections, 77 (77.8%) involved collisions with pedestrians.

Most (59%) of the rural accidents occurred on the "straight road". Of 2,275 so classified, 44.9 per cent were collisions between motor vehicles; 16.8 per cent involved pedestrians; 14.6 per cent were "non-collision" (running off roadway, overturning, etc.) accidents; and 11.4 per cent resulted from collisions with fixed objects. Of 164 fatal accidents on the rural straight road—40.9 per cent were collisions with pedestrians; 21.3 per cent resulted from "non-collision" accidents; 15.8 per cent from collisions with other motor vehicles; and 12.8 per cent from collisions with fixed objects. In the following order, collisions with fixed objects, non-collision, and collision with other motor vehicles were the most common types of fatal accidents on curves.

TABLE No. 22—PERCENTAGE DISTRIBUTION OF VARIOUS TYPES OF COLLISION, ACCORDING TO ROAD LOCATION

URBAN ACCIDENTS

Location	All Types	Pedestrian	Other Motor Vehicles	Horse-drawn Vehicle	Railroad train	Street Car	Fixed Object	Bicycle	Non-collision	Other Types
Street intersection....	51.98	38.3	68.9	34.7	....	55.8	36.4	64.7	36.6	71.6
Between street intersections...........	41.63	58.6	26.2	62.7	....	34.0	42.0	28.8	32.4	18.7
Private driveway.....	2.28	1.6	2.4	1.3	....	5.4	1.2	4.0	....	5.7
Curve..............	2.17	.8	1.6	....	....	1.8	16.1	1.0	28.2	2.4
Hill................	.85	.7	.5	1.3	....	2.4	3.1	1.2	1.4	.8
Railroad crossing:										
(a) Man on duty or gates........	.09	....	....	....	8.9	....	....	....	....	....
(b) Automatic signal	.12	....	....	....	13.3	....	....	....	....	....
(c) Unguarded.....	.59	....	....	....	77.8	....	....	....	....	....
Bridge..............	.29	....	.4	....	....	.6	1.2	.3	1.4	.8
Totals..........	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage in each class..........	100.00	43.3	32.2	1.3	.8	2.8	4.5	11.8	1.2	2.1

RURAL ACCIDENTS

Location	All Types	Pedestrian	Other Motor Vehicles	Horse-drawn Vehicle	Railroad train	Street Car	Fixed Object	Bicycle	Non-collision	Other Types
Rural intersection....	12.1	8.2	16.3	8.7	....	40.0	5.2	31.4	4.4	7.9
Straight road........	59.0	78.2	53.6	73.8		60.0	58.4	59.3	61.2	70.0
Private driveway.....	4.8	2.9	7.0	1.6	....	....	1.8	3.6	2.2	6.4
Curve...............	12.0	3.9	11.0	2.4	....	....	22.0	2.8	22.2	5.7
Hill................	9.5	6.1	10.9	12.7	....	....	9.4	2.9	9.6	10.0
Railroad crossing:										
(a) Man on duty or gates........	.1	....	....	....	5.4	....	....	....	....	....
(b) Automatic signal	.3	....	....	....	23.2	....	....	....	....	....
(c) Unguarded.....	1.1	....	....	....	71.4	....	....	....	....	....
Bridge..............	1.1	.4	1.2	.8	....	....	3.2	....	.4	....
Total...........	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage in each class..........	100.0	12.7	49.4	3.3	1.5	.3	11.5	3.6	14.1	3.6

Almost 52 per cent of the urban accidents during 1934 occurred **at** street intersections, although most of the collisions with pedestrians (the most common type of urban accident, and comprising, during 1934, 43.3 per cent of the total) occurred **between** street intersections. The "collision with other motor vehicle" type, which was second in frequency, occurred most often **at** intersections—almost 7 of every 10 urban accidents of this type happened at this location.

The location of 59 per cent of the rural accidents was classified as "straight road". It will also be noticed that the share (53.6%) of collisions between motor vehicles at this location was more than twice as great as the percentage of this type of accident which occurred at the corresponding ("between street intersection") location on urban streets.

Collisions with fixed objects and "non-collision" accidents which together comprised about one-quarter of the rural mishaps, showed a relatively high incidence at curves.

TABLE No. 23—ALL ACCIDENTS, FATALITIES, PERSONS INJURED AND AMOUNT OF PROPERTY DAMAGE, BY MONTHS

Month	Accidents		Fatalities		Persons Injured		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	Amount	Per cent
January	548	5.7	17	3.3	439	4.9	$ 46,977	5.0
February	548	5.7	20	3.9	420	4.7	53,649	5.7
March	538	5.6	22	4.3	462	5.1	43,741	4.6
April	575	6.0	19	3.7	519	5.8	47,431	5.0
May	685	7.1	44	8.6	645	7.2	52,411	5.5
June	777	8.0	42	8.2	781	8.7	77,133	8.2
July	1,003	10.4	60	11.7	1,026	11.4	121,722	12.9
August	965	10.0	65	12.7	975	10.8	106,570	11.3
September	1,117	11.6	71	13.9	1,087	12.1	135,594	14.4
October	1,034	10.7	56	10.9	995	11.1	90,044	9.6
November	930	9.6	53	10.4	837	9.3	81,684	8.7
December	925	9.6	43	8.4	804	8.9	85,766	9.1
Total	9,645	100.0	512	100.0	8,990	100.0	$942,722	100.0

As in previous years, accidents were most frequent during the third and last quarters of the year. The property damage loss per accident reported during July, August and September amounted to $117.93, as compared with $88.21 for the remaining nine months. The greater seriousness of motor accidents during this period was also suggested by the fact that there was one death for every 16 accidents reported during the third quarter as compared with a ratio of 1 to 21 for the rest of the year. However, on the basis of 10,000,000 gallons of gasoline consumed, the death rates were at their highest point during the last quarter of the year.

The rates for each month were as follows:

Month	Death Rate
January	13.9
February	17.9
March	17.1
April	11.3
May	23.6
June	17.8
July	21.6
August	24.4
September	25.5
October	24.0
November	28.2
December	28.2
Total (average rate)	21.9

Probably the most important factor in this bad record for the early winter is the lowered visibility due to early darkness, and unfavourable weather conditions.

TABLE No. 24—DAY OF OCCURRENCE

	Number of Accidents							
	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Sunday	1,333	13.82	70	14.71	873	12.91	390	16.21
Monday*	1,354	14.04	63	13.23	930	13.76	361	15.01
Tuesday	1,239	12.85	63	13.23	885	13.09	291	12.09
Wednesday	1,241	12.87	64	13.44	869	12.85	308	12.80
Thursday	1,230	12.75	57	11.98	888	13.13	285	11.85
Friday	1,256	13.02	64	13.45	883	13.06	309	12.84
Saturday	1,989	20.62	95	19.96	1,433	21.19	461	19.16
Not stated	3	.03	....	....	2	.03	1	.04
Totals	9,645	100.00	476	100.00	6,763	100.00	2,406	100.00

The increased hazard of driving and walking during the week-ends is suggested by the above table, which shows about half of all accidents and about the same share of the fatal mishaps occurred in the three days—Saturday, Sunday and Monday.

This fact is also indicated by the following data which show an average of one fatal accident every

17.8 hours on Sunday;
20.2 hours on Monday;
19.8 hours on Tuesday;
19.5 hours on Wednesday;
21.9 hours on Thursday;
19.5 hours on Friday;
13.1 hours on Saturday.

The average for all days was one fatal accident every 18.4 hours.

Sunday accidents were almost equal to the Saturday total on the King's Highways, while in the cities fewer accidents occurred on that day than on any other day of the week.

Of the 149 fatal mishaps on the King's Highways, 82 or 55 per cent happened on the three days—Saturday, Sunday and Monday; whereas in the cities fatal accidents were at their lowest point on Sunday, and the totals for each of the other days were about equal.

---

*During 1934, there was one more Monday (53) than other days of the week.

TABLE No. 25—HOUR OF OCCURRENCE

	Total		Fatal		Number of Accidents			
					Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
12– 1 A.M.	328	3.4	18	3.8	209	3.1	101	4.2
1– 2 "	222	2.3	13	2.7	124	1.8	85	3.5
2– 3 "	150	1.5	9	1.9	83	1.2	58	2.4
3– 4 "	92	.9	7	1.5	49	.7	36	1.5
4– 5 "	74	.8	5	1.1	44	.6	25	1.0
5– 6 "	69	.7	6	1.3	33	.5	30	1.2
6– 7 "	113	1.2	10	2.1	69	1.0	34	1.4
7– 8 "	175	1.8	8	1.7	110	1.6	57	2.4
8– 9 "	260	2.7	12	2.5	180	2.7	68	2.8
9–10 "	218	2.3	11	2.3	147	2.2	60	2.5
10–11 "	324	3.4	17	3.6	208	3.1	99	4.1
11–12 "	444	4.6	24	5.0	313	4.6	107	4.5
12– 1 P.M.	459	4.8	18	3.8	343	5.1	98	4.1
1– 2 "	414	4.3	18	3.8	290	4.3	106	4.4
2– 3 "	455	4.7	9	1.9	319	4.7	127	5.3
3– 4 "	517	5.4	35	7.3	342	5.1	140	5.8
4– 5 "	635	6.6	32	6.7	469	6.9	134	5.6
5– 6 "	909	9.4	42	8.8	689	10.2	178	7.4
6– 7 "	769	8.0	35	7.3	559	8.3	175	7.3
7– 8 "	687	7.1	33	6.9	520	7.7	134	5.6
8– 9 "	727	7.5	38	8.0	545	8.1	144	6.0
9–10 "	562	5.8	28	5.9	409	6.0	125	5.2
10–11 "	484	5.0	22	4.6	324	4.8	138	5.7
11–12 "	511	5.3	26	5.5	347	5.1	138	5.7
Not stated	47	.5	....	....	38	6	9	.4
Totals	9,645	100.0	476	100.0	6,763	100.0	2,406	100.0

More accidents, fatal and otherwise, happened between 5 and 6 p.m. than any other hour. Almost two-fifths of all accidents and about the same share of the fatal mishaps occurred during the five-hour period, 4 to 9 p.m.

The greater hazard of night driving is suggested by the fact that 43.2 per cent of the fatal accidents occurred between 8 o'clock in the evening and 6 o'clock in the morning, whereas only 33.2 per cent of all accidents were found to have taken place during this period.

As a means of indicating the greater probability of various types of accident at certain hours of the day, the following data show the percentage distribution by three eight-hour periods:

HOUR OF OCCURRENCE—*Continued*

Type of Accident	Total	12 a.m. to 7.59 a.m.	8 a.m. to 3.59 p.m.	4 p.m. to 11.59 p.m.
Collision with:				
Pedestrian	100.0	5.4	33.9	60.7
Other motor vehicle	100.0	14.5	31.3	54.2
Railroad train	100.0	18.0	39.0	43.0
Street car	100.0	8.0	40.6	51.4
Fixed object	100.0	30.9	28.6	40.5
Bicycle	100.0	6.0	32.5	61.5
Non-collision	100.0	20.1	33.9	46.0
Other types	100.0	21.5	26.7	51.8
Total (all types)	100.0	12.7	32.2	55.1

It will be noticed in the foregoing table that 12.7 per cent of all accidents reported occurred during the eight hours, 12.00 a.m. to 7.59 a.m., only a small share (5.4%) of the mishaps involving pedestrians happened during this period, whereas a relatively large number of collisions with fixed objects and non-collision accidents occurred during the early morning.

Almost 1 of every 3 accidents happened during the hours 8.00 a.m. to 3.59 p.m. Collisions with street cars, with railroad trains and with pedestrians showed a higher than average frequency during this time.

More than half (55.1%) of all accidents happened between 4 o'clock in the afternoon and midnight. The combination of insufficient light and a large volume of traffic is the most obvious explanation for the greater frequency of accidents at this time. The large percentage of the pedestrian and bicycle accidents during these 8 hours deserves attention.

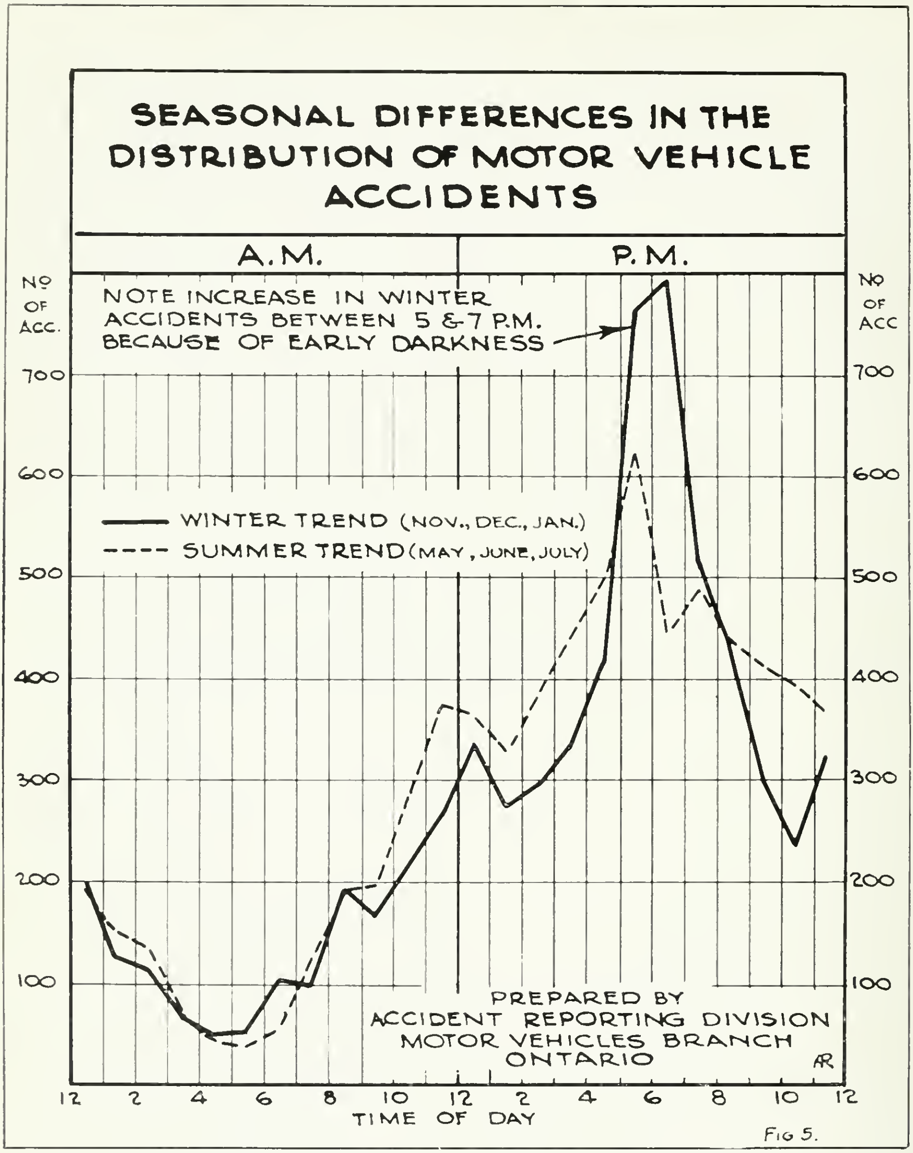


Fig 5.

The above graph shows the hourly distribution of motor vehicle accidents in Ontario during two three-month periods. Accidents for May, June and July, the months having the longest days, and November, December and January, having the shortest days, are compared.

From 8 a.m. to 5 p.m., and again after 8 p.m., the chart shows winter accidents to be fewer than summer accidents. During the intervening hours (5 to 8 p.m.) there is a considerable (33.4%) rise in the number of winter mishaps. Comparing the hours (9 p.m. to 5 p.m. the next day) during which it is either light or dark in both seasons, the winter total was about 83 per cent of the summer total.

If illumination had no influence on the number of accidents, the same relationship would hold during the hours 6 to 8 p.m., which are light in summer and dark in winter.

The expected winter total for this period would be about 775 (83% of 934, the summer total for these hours). However, the winter total was actually 1,316, or 541 in excess of the expected winter total. This excess, amounting to 41 per cent of the winter total, apparently results from insufficient illumination.

There were 10,462 night accidents in Ontario during the last three years. It is safe to assume, then, that about 4,289, or 41 per cent of the total, resulted either directly or indirectly from inadequate illumination.

TABLE No. 26—LIGHT CONDITION

	Number of Accidents							
	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Daylight	5,242	54.3	247	51.9	3,747	55.4	1,248	51.9
Dusk	452	4.7	32	6.7	299	4.4	121	5.0
Dark	3,941	40.9	197	41.4	2,710	40.1	1,034	43.0
Not stated	10	.1	....	....	7	.1	3	.1
Total	9,645	100.0	476	100.0	6,763	100.0	2,406	100.0

Unfavourable light conditions add to the possibility of serious accident. During 1934, for every hundred accidents reported as occurring during darkness, there were 5 fatal accidents; during "dusk", 7 fatal mishaps; while during daylight the fatal rate was 4.7.

The importance of inadequate illumination as a factor is more clearly illustrated by a study made of summer and winter accidents during the past three years. (See Figure 5.)

The following table shows the percentage distribution of the various types of accident, on the urban and rural roads, detailed according to daylight and dark:

Type	Urban		Rural	
	Daylight	Dark	Daylight	Dark
	Per cent	Per cent	Per cent	Per cent
Collision with:				
Pedestrian	46.25	38.79	13.83	11.34
Other motor vehicle	29.60	36.21	47.07	52.64
Horse-drawn vehicle	.59	2.22	1.97	4.63
Railroad train	.52	1.11	1.82	1.07
Street car	2.76	3.15	.40	.12
Other vehicles	.03	.00	.35	.24
Fixed object	3.78	5.76	12.16	11.10
Bicycle	12.85	9.88	3.89	3.50
Motorcycle	2.61	1.33	1.26	.65
Non-collision	1.01	1.51	15.74	11.87
Miscellaneous	.00	.04	1.51	2.84
Totals	100.00	100.00	100.00	100.00

With few exceptions, there is slight variation in the share of types of daylight accidents to total daylight accidents, from the share of corresponding types of night accidents to all night mishaps. Among the exceptions may be noted the greater proportion of collisions with horse-drawn vehicles during hours of darkness which was experienced both on urban and rural roads. Railroad accidents appear to present a greater hazard at night in the urban streets, while this type of mishap made up a greater share of the daylight accidents on the rural roads. The same contrasting results will also be noted for collisions with "fixed objects" and "non-collision" accidents.

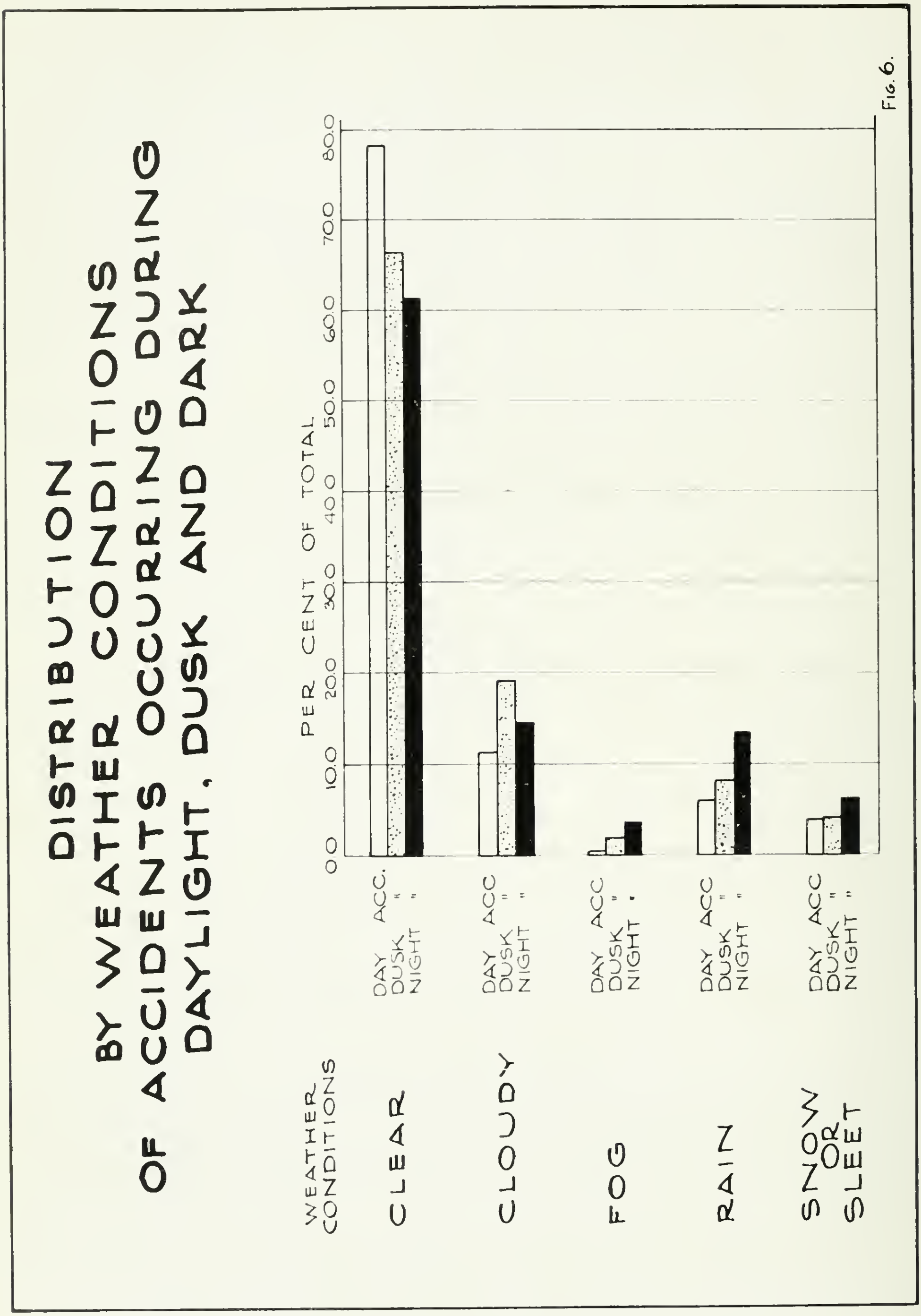

DISTRIBUTION
BY WEATHER CONDITIONS
OF ACCIDENTS OCCURRING DURING
DAYLIGHT, DUSK AND DARK
PER CENT OF TOTAL
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0
WEATHER CONDITIONS
CLEAR
DAY ACC.
DUSK " "
NIGHT " "
CLOUDY
DAY ACC
DUSK " "
NIGHT " "
FOG
DAY ACC
DUSK "
NIGHT "
RAIN
DAY ACC
DUSK " "
NIGHT " "
SNOW OR SLEET
DAY ACC
DUSK " "
NIGHT " "
FIG. 6.

TABLE No. 27—WEATHER CONDITION PREVAILING

Weather	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Clear	6,838	70.9	355	74.6	4,889	72.3	1,594	66.2
Cloudy	1,262	13.1	55	11.6	884	13.1	323	13.4
Fog	182	1.9	9	1.9	116	1.7	57	2.4
Rain	894	9.3	42	8.8	604	8.9	248	10.3
Snow or Sleet	469	4.8	15	3.1	270	4.0	184	7.7
Totals	9,645	100.0	476	100.0	6,763	100.0	2,406	100.0

About 7 of every 10 accidents and approximately 3 of every four fatal accidents during 1934 occurred during clear weather conditions. The "fatal rate" (ratio of fatal accidents to all accidents) was 62.5 per cent higher when weather conditions were good than the rate under conditions of snow or sleet. This suggests that drivers can drive carefully when the weather demands it, but are often lulled into a false sense of security by favourable conditions.

As indicated by Graph No. 6, unfavourable light conditions accentuate the hazards of driving under unfavourable weather conditions. Notice that the share of daylight accidents when weather conditions were "clear" exceeded the percentage of night accidents under the same weather conditions; whereas the percentage of "dusk" and "night" accidents under unfavourable conditions in each case exceeded the percentage of "day" mishaps under the same conditions. It will be seen that 6.0 per cent of the "day" accidents happened during "rain", while 8.2 per cent of the accidents during dusk, and 13.7 per cent of the night accidents occurred during this condition of the weather.

The data used in preparing the graph are shown below:

Weather Condition	Per cent of Total Day Accidents	Per cent of Total Dusk Accidents	Per cent of Total Night Accidents
Clear	78.3	66.6	61.5
Cloudy	11.3	19.2	14.8
Fog	.5	2.0	3.8
Rain	6.0	8.2	13.7
Snow or Sleet	3.9	4.0	6.2
Totals	100.0	100.0	100.0

TABLE No. 28—ROAD SURFACE CONDITIONS PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Dry surface	6,443	66.8	348	73.1	4,684	69.3	1,411	58.7
Wet surface	1,573	16.3	69	14.5	1,090	16.1	414	17.2
Muddy surface	21	.2	3	.6	12	.2	6	.2
Snowy surface	523	5.4	21	4.4	300	4.4	202	8.4
Icy surface	1,085	11.3	35	7.4	677	10.0	373	15.5
Not stated	....	....	....	....	....	....	....	....
Totals	9,645	100.0	476	100.0	6,763	100.0	2,406	100.0

As in the previous section, an analysis of motor vehicle accidents on the basis of road conditions emphasizes the contention that many drivers are put off their guard by apparently safe surroundings.

In proof of this, we find that during 1934 the ratio of fatal accidents to total accidents which happened on dry surfaces was 69 per cent higher than the ratio of fatal accidents on icy surfaces; and 23 per cent higher than on wet surfaces.

ANNUAL REPORT

OF

The Commissioner of the Ontario Provincial Police

1934

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 34, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

To His Honour Herbert Alexander Bruce, Esq.,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

The undersigned has the honour to present to Your Honour the Report of The Commissioner of the Ontario Provincial Police for the year ending 31st October, 1934.

Respectfully Submitted,

A. W. Roebuck,
Attorney General.

Attorney General's Department.

ONTARIO PROVINCIAL POLICE

Commissioner

MAJOR-GENERAL V. A. S. WILLIAMS, C.M.G.

Criminal Investigation Branch

Inspectors

J. MILLER
E. D. L. HAMMOND
A. B. BOYD
E. C. GURNET, M.M.
W. H. LOUGHEED (Att'd)
W. H. WARD
H. GARDNER, M.M.

Staff Inspectors

W. C. KILLING
A. MOSS
E. T. DOYLE

Liquor Control Investigation Branch

F. E. ELLIOTT, CHIEF INSPECTOR

Motorcycle Patrol

J. A. GRANT, M.M., INSPECTOR-IN-CHARGE

Area Inspectors

F. G. JEROME
T. G. P. LUCAS
S. HUNTER

No. 1	District,	Windsor	District Inspector	P. WALTER.
No. 2	“	London	“ “	T. W. COUSANS.
No. 3	“	Hamilton	“ “	W. T. MOORE.
No. 4	“	Niagara Falls	“ “	C. F. AIREY, M.S.M.
No. 5	“	Toronto	“ “	A. R. ELLIOTT.
No. 6	“	Kitchener	“ “	C. A. JORDON.
No. 7	“	Barrie	“ “	J. H. PUTMAN.
No. 8	“	Belleville	“ “	F. GARDNER, M.S.M.
No. 9	“	Perth	“ “	S. OLIVER.
No. 10	“	Haileybury	“ “	F. B. CREASY.
No. 11	“	Sudbury	“ “	A. H. PALMER.
No. 12	“	Port Arthur	“ “	W. G. INGRAM.

Annual Report of the Commissioner of Police for Ontario, 1934

ONTARIO PROVINCIAL POLICE,
Headquarters, Toronto.

THE HONOURABLE THE ATTORNEY GENERAL,
Parliament Buildings, Toronto, Ontario.

SIR,—I have the honour to submit herewith my Annual Report for the year ending October 31st, 1934.

STRENGTH AND DISTRIBUTION OF THE FORCE ON OCTOBER 31ST, 1934

	Commissioner's Office	Crim. Invest. Branch	L.C.I. Branch	Motorcycle Patrol	Heaquarters Garage	No. 1 District	No. 2 District	No. 3 District	No. 4 District	No. 5 District	No. 6 District	No. 7 District	No. 8 District	No. 9 District	No. 10 District	No. 11 District	No. 12 District	Total Strength
Commissioner	1																	1
Chief Inspector, C.I.B.		1																1
Staff Inspectors	3																	3
Accountant	1																	1
Inspectors, C.I.B.		7																7
Chief Inspector, L.C.I.B			1															1
Inspector i/c M.C.P.				1														1
District Inspectors						1	1	1	1	1	1	1	1	1	1	1	1	12
Area Inspectors, M.C.P.				3														3
Sergeants		1				1	1	1		1	1	1	1	2	2	1	1	14
Provincial Constables	2					15	16	7	11	18	14	10	14	14	21	12	19	173
Provincial Constables N.M.C.P.												2			2	3		7
Provincial Constables M.C.P.				72														72
Totals	7	9	1	76		17	18	9	12	20	16	14	16	17	26	17	21	296
Insp. of Automobiles					1													1
Chauffeurs and Mechanics					9	2	1	1	1		1	1	1	1	1	1	1	21
Clerks, etc.	8	1	1	3		1	1	1	1		1	1	1	1	1	1	1	24
Grand Totals	15	10	2	79	10	20	20	11	14	20	18	16	18	19	28	19	23	342
Automobiles					12	2	4	1	5	5	3	2	1	3	6	3	2	49
Motorcycles												2			3	3		8

For purposes of administration the Province is divided into twelve Districts numbered consecutively one to twelve with headquarters as follows:—

No. 1 District, Windsor
No. 2 District, London
No. 3 District, Hamilton
No. 4 District, Niagara Falls
No. 5 District, Toronto
No. 6 District, Kitchener
No. 7 District, Barrie
No. 8 District, Belleville
No. 9 District, Perth
No. 10 District, Haileybury
No. 11 District, Sudbury
No. 12 District, Port Arthur

LOCATION OF OFFICERS

Location	Officers	Sergeants	Prov. Constables	Prov. Constables M.C.P.	Chauffeurs and Mechanics	Cars or Motor cycles
Headquarters:						
Toronto	14	1	2	1	9	12
No. 1 District:						
Windsor	1	1	10	1	2	2
Amherstburg			1			
Leamington			2	1		
Belle River			1			
Essex				1		
Roseland				1		
Kingsville			1			
No. 2 District:						
London	2	1	3	1	1	1
Glencoe			1			
Chatham			3	1		1
Tilbury			1	1		
Sarnia			2	1		1
St. Thomas			2	1		
Woodstock			1	1		
Brantford			1	2		
Simcoe			2			1
Ingersoll				1		
Melbourne				1		
Dresden				1		
Lambeth				1		
Blenheim				1		
Paris				1		
Tillsonburg				1		
Shedden				1		
Wardsville				1		
No. 3 District:						
Hamilton	1	1	6		1	1
Milton			1			
Palermo				1		
Waterdown				1		
Dundas				1		
Oakville				1		
Burlington				1		
No. 4 District:						
Niagara Falls	1		3	1	1	1
Ridgeway			1	1		1
Fort Erie			1			
Welland			2	1		1
Dunnville			1	1		1
St. Catharines			2			1
Grimsby			1			
Beamsville				1		
Caledonia				1		
Smithville				1		
Stoney Creek				1		

LOCATION OF OFFICERS—Continued

Location	Officers	Sergeants	Prov. Constables	Prov. Constables M.C.P.	Chauffeurs and Mechanics	Cars or Motor cycles
No. 5 District:						
Toronto	2	1	14			4
Brampton			1	1		1
Cooksville			1	1		
Oshawa			1			
Cannington			1			
Pickering				1		
Thornhill				1		
Mimico				1		
Highland Creek				1		
Richmond Hill				1		
Islington				1		
Port Credit				1		
No. 6 District:						
Kitchener	1	1	5	1	1	1
Walkerton			1			
Wiarton			1			
Goderich			1			
Stratford			1	1		1
Palmerston			1			
Guelph			1			
Puslinch				1		
Rockwood				1		
Meaford			1			
Shelburne				1		
Owen Sound			2	1		1
Mitchell				1		
Arthur				1		
No. 7 District:						
Barrie	1	1	2	1	1	1
Alliston			1			
Midland			1			
Orillia			1	1		
Wasaga Beach			1			
Collingwood			1			
Orangeville			1			
Bracebridge			1			
Huntsville (N.M.C.P.)			1			1
Gravenhurst (N.M.C.P.)			1			1
Parry Sound			2			
Burks Falls			1			1
Bradford				1		
No. 8 District:						
Belleville	1	1	2	2	1	1
Bancroft			1			
Madoc			1			
Picton			1			
Lindsay			1	1		
Minden			1			
Peterborough			1	1		
Cobourg			1			
Bowmanville			1	1		
Campbellford			1			
Napanee			1	1		

LOCATION OF OFFICERS—Continued

Location	Officers	Sergeants	Prov. Constables	Prov. Constables M.C.P.	Chauffeurs and Mechanics	Cars or Motor cycles
Colborne				1		
Kingston			1	1		
Sharbot Lake			1			
No. 9 District:						
Perth	1	1	2	1	1	1
Cumberland				1		
Rockland			1			
Cornwall		1	2	1		1
Morrisburg			1	1		
Renfrew			1			
Pembroke			1			
Smith's Fall				1		
Ottawa			1			
Brockville	1		1	1		1
Prescott			1	1		
Hawkesbury				1		
L'Orignal			1			
Lancaster			1			
Alexandria			1			
Arnprior				1		
Kemptville				1		
No. 10 District:						
Haileybury	1	1	2		1	2
Haileybury (N.M.C.P.)			1			1
Cobalt			1			
Ansonville			1			
Matheson (N.M.C.P.)			1			1
Elk Lake			1			
Timmins			2			
Kirkland Lake			3			1
Gowganda			1			
Kapuskasing			1			1
Englehart			1			
North Bay			2			1
North Bay (N.M.C.P.)			1			1
Sturgeon Falls			1			
Mattawa			1			
Temagami			1			
Cochrane		1	2			1
Hearst			1			
No. 11 District:						
Sudbury	1	1	3		1	1
Sudbury (N.M.C.P.)			1			1
Warren (N.M.C.P.)			1			1
Foleyet			1			1
Capreol			1			
Little Current			1			1
Sault Ste. Marie			2			1
Sault Ste. Marie (N.M.C.P.)			1			1
Blind River			1			
Chapleau			1			
Bruce Mines			1			
Gogama			1			

Location of Officers—Continued

Location	Officers	Sergeants	Prov. Constables	Prov. Constables M.C.P.	Chauffeurs and Mechanics	Cars or Motor cycles
No. 12 District:						
Port Arthur	1	1	2		1	2
Fort William			2			
Nipigon			1			
Hudson			1			
Nakina			1			
Kenora			3			
Sioux Lookout			2			
Dryden			1			
Minaki			1			
Fort Frances			2			
Rainy River			1			
Gold Pines			2			

CHANGE IN PERSONNEL

The following appointments and retirements from the Force became effective during the year 1933-34:—

Appointments

Provincial Constables	31
Provincial Constables, M.C.P.	21
Automobile Mechanics	1
TOTAL	53

RETIREMENTS

	Died	Dismissed	Permitted to Resign	Resigned	Struck off Strength (Reduction in Staff)	Struck off Strength (Office Abolished)	Struck off Strength (Medically Unfit)	Superannuated	TOTAL
Inspector, L.C.I.B.					1				1
Provincial Constables		2	1	1	31				35
Provincial Constables, M.C.P.	1	1		4	21		1		28
Prov. Spec. Constables (Perm.)						12		1	13
Prov. Spec. Constables (Temp.)						2			2
Chauffeurs				1	1				2
Automobile Mechanics					1				1
TOTAL	1	3	1	6	55	14	1	1	82

The strength of the Force as of October 31st, 1934, stood at 342 all ranks.

TRANSFERS, ETC.

In keeping with the policy of the Force in maintaining its efficiency a number of transfers of members of the Force have been made from one part of the Province to another. There have also been tansfers to fill vacanies caused by deaths, resignations, etc., but in the interest of economy these transfers have been kept as low as possible.

CONDUCT AND DISCIPLINE

The conduct and discipline of all ranks has with few exceptions been excellent and a very high standard has been maintained. The members of the Force have shown a commendable spirit of loyalty and efficiency, and the Inspectors in charge of Districts express appreciation of the manner in which the men under them have performed their duties.

Many letters of commendation have been received by me from private citizens, Police Departments, Crown Attorneys, Welfare Societies in the Province, and many individuals and organizations in the United States, speaking in the highest terms of the work done and services rendered by all branches of the Force.

THE HEALTH OF THE FORCE

The general health of the Force has been good. A small percentage has been off duty for varying periods from colds, influenza, etc., contracted by exposure to the severe weather. There has been a number off duty suffering from injuries received and illness contracted whilst in the execution of their duties, mostly in connection with unemployed disturbances and strikes. This refers particularly to members of the Motorcycle Patrol, who have been incapacitated from duty owing to serious injuries received whilst in the execution of their duties.

DEATHS

Provincial Constable Russell Lemon, Motorcycle Patrol

I regret to have to report the death of Provincial Constable Russell Lemon, Motorcycle Patrol, stationed at Kitchener, Ontario, who died from injuries received through being struck by an automobile on the Preston Highway near Kitchener, on the night of March 11th, 1934.

The automobile causing the injuries did not stop, but upon investigation sufficient information was obtained to prove that the injures were cause by an automobile driven by James Gettas, restauranteur, Kitchener, who was arrested and later charged with Manslaughter.

When the case came to trial the Grand Jury found No Bill on the Manslaughter charge, but a True Bill on a Criminal Negligence charge.

At the trial the Judge before whom the case came, ruled that the Crown had failed to show gross negligence or wilful or wanton misconduct on the part of the driver of the automobile, and dismissed the case.

Gettas was later fined for a violation of the Highway Traffic Act in not remaining at the scene of an accident.

Provincial Constable Lemon was a most efficient member of the Motorcycle Patrol, with an excellent record on the Highways, and his death was a distinct loss to the Force.

GENERAL

The total number of cases prosecuted by members of the Force under all Acts and Statutes during the year was 17,966, a decrease of 1,574 over 1932-33.

There has been a slight decrease in some of the more serious crimes against property, such as robbery with violence, breaking and entering, and theft, whilst serious crimes against the person, such as rape and attempts, incest, indecent assault, etc., are practically equal to 1932-33.

Prosecutions under the Criminal Code and all other Statutes (exclusive of the Highway Traffic Act and the Liquor Control Act) numbered 5,704, a decrease of 477 over 1932-33.

Prosecutions under the Liquor Control Act numbered 2,419, a decrease of 577 over 1932-33.

Prosecutions under the Highway Traffic Act numbered 9,843, a decrease of 520 over 1932-33.

A classified return of all prosecutions, convictions, dismissals, etc., will be found on pages

In comparing the work accomplished by members of the Force with that for the preceding year, I find conditions generally satisfactory.

For the first time in the history of the Force we were confronted, during the year, with the serious crime of kidnapping.

Two such cases were reported and investigated.

In the first instance a direct, forcible kidnapping of a prominent resident of the Province took place whilst he was driving an automobile on the highway in broad daylight, the intention being to hold the victim until a ransom was paid.

The second instance was a forcible detention and kidnapping of the driver and two other occupants of a truck loaded with valuable merchandise, whilst the truck was being driven over the highway, with intent to steal the contents of the truck.

Both of the above cases are dealt with in greater detail further on in this report.

In all prosecutions instituted by members of this Force, the utmost assistance has been given by Crown Attorneys and Police Magistrates, and I find that the general good feeling between the members of the Force and the law officers they come in contact with has been well maintained.

The number of investigations made by members of the Force in matters of every conceivable description was 29,028.

These cover a great range, and in addition to complaints of infractions of the Criminal Code, Liquor Control Act and other Statutes, include requests to locate missing persons for private individuals and other Police Forces, foreign Consuls and Municipal authorities in Great Britain and Ireland, many European countries and the United States.

The members of the Force have efficiently dealt with all matters brought to their notice in their respective districts, and it is gratifying to report that with very few exceptions the numerous problems in connection with law enforcement have been dealt with in such a way as to leave very little to be desired.

COUNTY CONSTABULARIES

Members of this Force are now performing the duties of Acting High Constables in each of the following Counties:

Essex
Brant
Oxford
Norfolk
Elgin
Kent
Lambton
Hastings
Glengarry
Halton
Lincoln
Welland
Haldimand
Ontario
Peel
Stormont
Dundas
Huron
Waterloo
Bruce
Grey
Wellington
Perth
Simcoe
Renfrew
Leeds
Dufferin
Wentworth
Prince Edward
Victoria and Haliburton
Peterborough
Northumberland and Durham
Lennox and Addington
Frontenac
Grenville
Prescott and Russell
Middlesex

Twenty-nine offices for High Constables have been equipped and are being maintained by this Department; seven High Constables are using offices equipped and maintained by Counties; two High Constables are using offices equipped by Counties and maintained by this Department and four High Constables are operating from their homes.

In the Counties of York, Lanark and Carleton, salaried High Constables are still employed by the County authorities.

A committee of Wentworth County Councillors investigated the various police systems, as authorized by a motion at the February session of their Council, with a view to having a Provincial Constable perform all the duties of High Constable for the County of Wentworth.

The committee endeavoured to gather from all sources any information that would assist them forming a proper conclusion.

Twenty-seven letters were sent to various Counties and the committee spent time checking up through County Clerks, learning that the Provincial system was most satisfactory, with the result that the committee recommended to the Warden and members of the Wentworth County Council that the necessary action be taken to have this Department take over the policing of Wentworth County as from May 1st, 1934. The work of the High Constables has been most satisfactorily carried out.

GAME AND FISHERIES ACT

Pursuant to instructions received from you, members of this Force commenced to enforce the provisions of the Game and Fisheries Act from September 1st, 1934.

Instructions were issued to all members of the Force to acquaint themselves with the Ontario Game and Fisheries Laws and Regulations and to co-operate with field officers of the Game and Fisheries Department.

The Game and Fisheries Department did not expect members of the Force to submit regular reports regarding conditions as they affect the game and fish resources of the Province in their respective districts, but in order to augment other information the Department secures, members of the Force were requested to report occurrences of an unusual nature which came to their attention.

Many complaints, on being investigated, were found to be either entirely unfounded or of a trivial nature and often made by persons seeking appointments.

From my observation I am of the opinion that, although the enforcement of the Game and Fisheries Act is new to many members of this Force, the Act, under present arrangement, will be efficiently enforced.

All members of the Force are interested in the preservation of game and game-fish, and with the expert guidance of the Game and Fisheries Department will become efficient in the new branch of enforcement work entrusted to them as the work becomes more familiar to them.

The particulars of the prosecutions under the Act will be found in the classified return of offences.

OFFENSIVE WEAPON PERMITS

The issuing of permits to carry offensive weapons has been continued and 6,283 of all classes of permits have been issued during the year, approximately 4,000 of last year's permits have been renewed.

This work takes up the whole of the time of one of my Staff Inspectors and to give some idea of the volume of work involved, 3,580 letters were written during the year on this one subject.

INDUSTRIAL UNREST, STRIKES, ETC.

Hespeler

On December 1st, 1933, thirty-one employees of the Dominion Woollens and Worsted Limited, Hespeler, went on strike without giving notice to their officials. The strike spread, affecting five departments and one hundred and fifty men and women workers. The remainder of seven hundred and thirty-two employees continued working.

Owing to intimidation of the strikers, those who wanted to continue working were forced to discontinue. The Mill closed down for an indefinite period on December 3rd, 1933, but resumed operation again on December 19th, 1933.

On account of disturbances and further intimidation, and upon request of the Municipal authorities, one Staff Inspector, one District Inspector, one Sergeant and thirty-three Constables were detailed to Hespeler to assist the local police. For a few days difficulty was experienced, workers being interfered with by strikers. Rotten eggs were thrown, assaults took place, an automobile was damaged, inciting to violence occurred, resulting in personal injuries and the arrest of the participants.

The strike concluded on January 2nd, 1934, when six hundred and forty employees returned to work.

Hawk Lake

Early in October a strike broke out at the lumber camps situated at Hawk Lake, on the Algoma Central Railway in the Michipicoten Area.

The first reports received from this area were that serious acts of violence had taken place and the District Inspector and Sergeant from Sudbury District Headquarters, with ten Provincial Constables, were dispatched to the scene of trouble.

Upon investigation, the reports were found to be exaggerated and the strike gradually wore itself out.

There was very little property damage or personal injury.

Abitibi Pulp and Paper Company Camps

In September 1934 a strike took place among the lumber men in the Camps of the Abitibi Pulp and Paper Company, situated on the Abitibi Railway, which affected what is known as Hennessy's Camp, Wright's Camp and Camp No. 4, or Seguin's Camp. Trouble started in these Camps September 14th and on September 19th they were raided by gangs of strikers and all workers cleaned out.

On October 7th, 1934, Branconnier's Camp at Mace, 46 miles East of Cochrane on the Canadian National Railway, was raided and partially cleaned out, but with Police protection most of the men returned to work.

On September 23rd, 1934, Wick's Camp on the Moosonee extension, Temiskaming and Northern Ontario Railroad, at Mileage 22, was raided by strikers and cleaned out.

Brander's Camp, twenty-two miles West of Cochrane on the Canadian National Railway, was compelled to completely shut down.

Gibson's Camp, Giroux's Camp and Camps 2, 3 and 4, had to partially close owing to strikes, but as soon as Police protection was provided the majority of the men returned to work.

On October 8th, 1934, an attempt was made to raid Pullan's Camp on the Canadian National Railway, but owing to police being present the raid failed.

This strike continued from September 14th to October 20th, affecting over one thousand bushmen and at the worst period the services of one District Inspector, two Sergeants and twenty Provincial Constables were engaged in dealing with the strikers.

Our greatest difficulty in handling this type of industrial trouble is the tremendous mileage area that the Camps are scattered over.

The area concerned in the above trouble is practically one hundred square miles.

I quote herewith extract from a report submitted by one of my District Inspectors, which gives an idea of the difficulty in dealing with this subject:—

> "I would respectfully draw your attention to the growing violence in these strikes. I have had, since coming to this District a little over three years ago, five strikes, namely one in the camps around Three Nations, one at Kapuskasing, one at Ansonville and Cochrane, one at Kapuskasing and again one at Ansonville and Cochrane, and I have noticed the leaders are becoming more insistent on their followings to use violence if opposed in the least way in any unlawful action. The last strike, the strikers were arming themselves with clubs cut out of the bush and did not hesitate to use them when the occasion arose. Luckily, the only Police Officers hurt were Provincial Constable Noyes, who got a bad gash over the head, Provincial Constable Clark, an injured hand, and Provincial Constable Gall, an injured wrist. These were from stones being thrown, which is another new act of violence being used."
>
> "I also wish to point out that easily sixty percent of the strikers have absolutely no wish to be on strike, but these raids are made by from one hundred to one hundred and fifty strikers and the working men are driven out from their work and forced to join the strike and are intimidated to the extent that they will stay with the strike. This is only too apparent in the last strike, when after the final clash at Cochrane and before we had even time to return after clearing the street of the strikers in front of the Court House at Cochrane, there were at least seventy-five to one hundred men came back to the Court House and asked for Police protection to go to work, stating that they never wished to join the strike but had been forced to, and the whole Camps affected filled up within two days and no official notice of the strike being over was ever sent out by the union."

RELIEF CAMP PATROLS

A large number of Work Camps operated by the Department of National Defence, Ottawa, and the Department of Northern Development, have been carried on during the year with general satisfaction and have aided considerably in ameliorating the distress caused by unemployment.

The following Camps have been operated by the Department of National Defence, Ottawa:

NORTHERN ONTARIO

Lac Seul Project

Sixteen Camps, with accommodation for one hundred and twenty men in each Camp.

Cochrane District

Two Camps, situated at Pagwa and Ogahela, employing about sixty men to each Camp.

Temiskaming District

Four Camps, situated at Ramore, Porquis Junction, Round Lake and Gillies, employing on an average of fifty to one hundred men.

Nipissing District

Two Camps, situated at Sturgeon Falls and Madawaska, each employing about one hundred and twenty-five men.

Air Base Camps—Districts of Thunder Bay and Kenora

Thirteen Camps have been in operation at the following centres:—Nakina, Kowkash, Camp Creek, Margach, Armstrong, Sioux Lookout, Savant Lake, Amesdale, Vermillion Bay, Lamore, Wagaming, Allenwater and Sunstrom.

EASTERN ONTARIO

Frontenac County

In Frontenac County there were two Camps in operation on what is known as Projects 37 and 42. At Camp 37 an average of two hundred men and at Camp 42 an average of five hundred men were employed during the year.

Trenton Airport—Hastings County

At this Camp an average of eight hundred men were employed during the year.

At the above Camps, more especially in Northern Ontario, our Provincial Constables have worked in conjunction with Camp Officials and rendered them assistance when necesary.

Owing to reduction in Staff we have been unable to carry out the same system of patrol as during 1933.

A great number of men employed at the above Camps are foreigner and it is difficult to get them settled to the routine of Camp life, where they are expected to do a certain amount of work for a small wage, but, generally speaking, their conduct has been excellent.

DEPARTMENT OF NORTHERN DEVELOPMENT

Camps have been in operation under the Department of Northern Development at the following places:—

Trans-Canada Highway Camps

Mokomon; Upsala; Mileage 93½ and Mileage 101, Canadian Pacific Railway; Schreiber; Sand Lake; Rossport; Squaw Creek; Wolf River; Nipigon; Parry Wood; Cavers; Rama; Geraldton.

Number of men at each Camp varying from thirty-five to one hundred and forty.

Camps—Other Than Trans-Canada Highway

International Highway:—	Savant Lake
	Dawson Road
Fort Frances Highway:—	Little Pine Lake
	Muskey Bay
Dyment-Sioux Lookout Highway:—	Camp 50 B
	Camp 50 C
	Camp 50 D
	Camp 50 E
Hudson-Sioux Lookout Highway:—	Camp 100
Fort Frances Highway:—	Camp 1-E-13
	Camp 1-E-14
Kenora-Winnipeg Highway:—	Camp 1-F-1
	Camp 1-F-2

Other Relief Camps were in operation at Kaministikwia, Hillside, Dawson Road, Mud Lake and Stawberry Creek.

Sudbury District

Chapleau	1 Camp	120 Men
Wahnapitae	1 Camp	120 Men
Westree	1 Camp	80 Men
Levack	1 Camp	120 Men

In addition to the above there were a number of settler's camps active in the District, making approximately two thousand to twenty-five hundred men employed, all told.

Algoma District

Desbarat	1 Camp	64 Men
Cutler	1 Camp	86 Men
Espanola	1 Camp	124 Men
Aubrey	1 Camp	

There were also eighteen settler's camps, with approximately six hundred and seventy-five men employed.

Manitoulin District

There were eight settler's camps on the Island, with approximately three hundred and thirty-five men employed.

EASTERN ONTARIO

Lennox and Addington County

In this County there were four Camps, employing upwards of six hundred and seventy-five men during 1934.

Peterboro County

Six Camps in this County, with an average of one hundred and fifty men in each Camp, making a total of approximately nine hundred men.

Haliburton County

There were ten Camps located in this County, with an average of about two hundred men to each Camp.

The District Inspectors in whose territory the above Camps were located report an almost entire absence of serious disorder and crime. The only cause for police activity being an occasional flare-up when some of the workers refused to work, owing to some real or fancied grievance, or an occasional case of intoxication or selling of moonshine.

The general reports on the Camps are that the accommodations and food were excellent and the health of the occupants very good.

There was not one major crime reported during the year from any Camp, and the almost entire absence of crime speaks exceptionally well for the morale of the men employed, also for the tact and judgment of the officials in charge.

There has been excellent co-operation between the members of this Force, the District Engineers, Camp Superintendents and others in an endeavour to keep professional agitators, bootleggers and prostitutes out of these Camps, and I am pleased to say the general behaviour of occupants show that those efforts were successful.

CRIMINAL INVESTIGATION BRANCH

The Criminal Investigation Branch has been continuously engaged on investigations into the more serious crimes, including murder, kidnapping, arson, rape, robbery with violence, etc., and with few exceptions these crimes have all been satisfactorily cleared up. Many important inter-departmental investigations have been made. These include enquiries for the Provincial Treasurer's Department, the Provincial Secretary's Department, the Department of Public Works, the Department of Highways, and especially the Department of Public Welfare regarding abuses arising from the administration of relief.

A number of prisoners wanted for various crimes in this Province were brought back from points in the United States by Inspectors of the Criminal Investigation Branch under warrants of extradition.

During the racing season, officers were present at all the tracks in the Province during the time racing was being carried on and were responsible for the prosecution of a number of "bookmakers" and other undesirable race track frequenters.

The Inspectors of this Branch have worked in the closest co-operation with the officials of the Ontario Securities Commission and many important assignments have been handled with good results.

KIDNAPPING

On August 14th, 1934, at about 10 a.m. whilst John S. Labatt, prominent member of the Labatt Brewery, London, Ontario, was proceeding by automobile from his summer home at Sarnia Beach to the Brewery at London by way of Calmachie and Warwick, his progress was interrupted on the Egremont Road by three men in an automobile, who blocked the Highway with their automobile so that Labatt could not pass and had to stop.

As soon as he had stopped, two men got out of the other automobile and approached the Labatt automobile, opened the door, produced revolvers and said: "Stick 'em up, quick—this is a kidnap." Mr. Labatt was then compelled by force to abandon his automobile and get into the car used by the kidnappers.

At this time Mr. Labatt was made to address a note, that had been prepared, to Hugh Labatt, his brother, setting forth the terms of release, with a personal message advising Hugh to do as the men said. This note was taken by one of the three men who drove the Labatt automobile to London, where it was found abandoned near St. Joseph Hospital.

A telephone message to Hugh Labatt at the Brewery, London, advised him where the automobile would be found, also where the note was hidden. Both were later found, as specified, by a member of the London City Police.

After Labatt was placed in the kidnapper's machine his eyes were taped and blue goggles placed over them. He was then driven, accompanied by two of the kidnappers, to a summer cottage (which had previously been rented by the kidnappers) near Bracebridge, Muskoka, where he was stripped of all clothing, except underwear, and chained to an iron bed with a dog chain.

Here he was kept until the night of Thursday, August 16th, 1934, when he was taken by automobile to Toronto, and released near the junction of St. Clair and Bathurst Streets. From here he went to the Royal York Hotel, where he got in touch with his friends and was taken to London.

In the meantime our own Police Force, assisted by the City Police of Toronto and London, the Royal Canadian Mounted Police, and every other Police Force in the Province, were on the alert and putting forth extraordinary efforts to capture the kidnappers and prevent the payment of the ransom.

Mr. Labatt eventually identified a number of suspects from photos submitted. The help of the Detroit Police was requested, as suspects were residents of the United States with well known connections in Detroit.

On September 20th David Meisner was arrested in Detroit charged with being a principal in the kidnapping and extradited to this Province, where he now awaits trial.

It is expected that other arrests will be effected in the near future.

ARMED ROBBERY AND KIDNAPPING

On October 11, 1934, about 10.30 p.m., Gerald Bariteau, driver, Lionel M. Herbert, helper, and Robert Hunter, passenger, in a Waller Transport truck and trailer of Hamilton, Ontario, loaded with approximately $10,000.00 worth of cigarettes and tobacco, the property of the Tuckett Tobacco Company, enroute to Montreal, Quebec, were held up by four unknown armed men on the Toronto-Kingston Highway near Napanee, Ontario.

The driver of the truck and helper were tied up and forced to sit on the back seat of a Chevrolet car and driven for four hours, returning in the direction of Toronto. The passenger was locked in the van of the transport truck. They were later blindfolded and driven to a vacant house where the truck was unloaded.

The bandits then locked the men in the van and drove for about one hour and a half, finally abandoning the transport truck and trailer on October 12th about 2.30 p.m. The men, when released by one John Howard, found themselves near Fergus, Ontario. They then went to Provincial Police Headquarters, Hamilton, and gave a comprehensive report of their experiences to our officers, who noted that these men had been very observant whenever they had an opportunity to do so.

The services of the Criminal Investigation Department and the Toronto City Police Department were called into action and the combined forces worked as a unit continuously, without rest, for a period of fifty-three hours, arresting Louis Blumenthal, Albert Prince and Howard Burbridge. Practically all the stolen goods were recovered in the City of Toronto and at a vacant house in King Township, County of York.

At the preliminary hearing held in the Magistrates Court, Toronto, the accused were committed for trial on the following charges:—Louis Blumenthal—Receiving Stolen Goods; Albert Prince and Howard Burbridge—Robbery Whilst Armed and Receiving Stolen Goods. On charges of Kidnapping under Section 297, Sub-Sections (a) and (b) of the Criminal Code, accused will be indicted before the Grand Jury at the next Assizes.

BANK ROBBERIES

Bank of Nova Scotia, Morewood

On November 14th, 1933, Mr. T. J. Bourke, Chief Clerk in charge of the Morewood sub-division of the Bank of Nova Scotia, was held up on the Chesterville-Morewood Road and robbed of $1,403.00 by two unknown men armed with rifle and revolver.

Bourke, whilst driving his automobile from the Bank at Morewood to Chesterville, was accosted by two men on the Highway, who, he thought, wanted a ride to Chesterville. He pulled up and the two men got into the automobile, where one drew a revolver and forced Bourke to drive his automobile into the bush. They then bound his hands and feet with sash-cord and after robbing him of the cash he carried, left him bound.

Bourke was successful in working free of his bonds and gave an alarm.

After very considerable investigation the robbery was traced to Osler McCaffery and Ewart Steinburg, who were arrested, charged and sentenced—McCaffery to two years in the Ontario Reformatory and Steinburg to three years in Kingston Penitentiary.

Bank of Toronto, Morriston

On December 1st, 1933, the branch of the Bank of Toronto at Morriston, Ontario, was held up by two bandits, who, after tying up the Bank staff, robbed the Bank of $500.00 in bills and escaped in an automobile.

The Kitchener District Headquarters was notified and had Officers on the spot in the shortest possible time.

An immediate alarm was broadcast and investigation commenced, which has been continued by this Force, assisted by Muncipal Police Forces throughout the Province. Every clue has been energetically followed up, but we have so far been unsuccessful in bringing about the arrest of those responsible for the robbery.

Royal Bank, Cargill

On August 14th, 1934, the branch of the Royal Bank at Cargill, Ontario, was held up by five men who forced the staff into the vault and then robbed the Bank of $2,000.00. The robbery was reported to our detachment at Walkerton and an investigation was immediately commenced, whereby information was obtained which resulted in the arrest of Frank Adamczyk and Anthony Diebold in Buffalo on August 15th, and later John A. Swick was also arrested in Buffalo, all three of whom are now awaiting trial on a charge of Robbery With Violence.

In this case we were confronted with a difficulty that quite frequently arises when dealing with crime investigation in this Province, to wit:—a number of American crooks make a sudden descent on this Province, pull off some serious crime and return to the United States before their capture can be effected.

Fortunately, the Buffalo Police authorities acted with praiseworthy promptness and through their co-operation enabled us to solve this robbery.

Bank of Commerce, St. Clements

On October 12th, 1934, the branch of the Canadian Bank of Commerce at St. Clements, Ontario, was held up by two armed men, who bound the manager and then robbed the Bank of $2,000.00 and after the robbery escaped in an automobile.

As a result of investigation, Albert E. Goodrich, alias Simpson, and Alfred S. Baker, natives of Ontario, were arrested in Montreal on October 24th and both admitted robbing the Bank of St. Clements. $425.00 of the stolen funds were recovered.

They were returned to Kitchener, where they are now awaiting trial.

MURDERS

Urho Maki, Township of Dill

On November 11th, 1933, Urho Maki, Finnish laborer of the Township of Dill, was shot and killed at his cabin at Crooked Lake.

The shooting was the result of a drunken brawl.

The death was investigated by the Sudbury District Headquarters Officers and as a result Urho Pitkainski, alias Makinen, was arrested and charged with Murder, but the Jury returned a verdict of Not Guilty at his trial.

Harold Wiser, Township of Ryd

On Sunday, December 17th, 1933, Harold Wiser, age 14, son of Herbert Wiser, District of Muskoka farmer, was shot and killed by Norman Ruttan, supposedly accidentally, whilst both were hunting rabbits.

As a result of evidence procured through an investigation by the Criminal Investigation Branch, a charge of Murder was laid against Ruttan and the case came up for trial on June 12th, 1934, when the Jury found him guilty of Manslaughter and he was sentenced to three years in Kingston Penitentiary.

Eva Elisabeth McLean, Smith's Falls

On December 31, 1933, Mrs. Eva Elisabeth McLean, housekeeper for Dr. Wilton Pratt, was burned so badly at the home of Dr. Wilton Pratt, Smith's Falls, that she died in the Hospital at 6 a.m. the same date.

As a result of the investigations made into the circumstances surrounding the death, Dr. Wilton Pratt was placed on trial on a charge of Murder and acquitted.

The investigation brought to light a very unsavory condition regarding Dr. Pratt's activities in causing abortions and numerous charges were brought against him as a result. He pleaded guilty to ten charges and was sentenced to five years in Kingston Penitentiary.

Bruce Gamble and Eva Gamble, Port Dover

On January 15th, 1934, the dead body of Bruce Gamble, age 50, married, was found lying at the entrance to a chicken house at the rear of his home.

Upon examination it was found that Gamble had been shot through the head and that a rope was tied around the upper part of the body, which had been used either to drag the body or in an attempt to make the death look like suicide.

An attempt was made to interview Gamble's wife, but whilst the Provincial Constables were trying to effect an entrance to the home a shot was heard from within the house and it was decided to break open the door. Upon forcing an entrance Mrs. Eva Gamble, wife of the dead man, was found lying face downward on the kitchen floor with a bullet wound through the right temple, unconscious but still living. She was taken to Hospital and died the same day.

At the inquest a verdict of Murder and Suicide was returned against Eva Gamble.

Florence Phillips and Herbert Phillips, Sparta

On February 17th, 1934, Joseph Phillips, age 64, farmer of Sparta, Ontario, shot and killed his brother Herbert, and sister Florence, at their home at Sparta. There is no doubt that Phillips, who had suffered from mental trouble for some time, intended also to kill his wife and son on their return from a shopping trip to London, but Mrs. Phillips, by a subterfuge, was able to get out of the house with her son and warn the Police. On the arrival of the Provincial Constable from St. Thomas, Phillips could be seen sitting in the house with a rifle across his knees, but before an entrance could be effected Phillips raised the rifle to his head and shot himself, death being instantaneous.

For years Phillips' mental derangement had been so marked that firearms were always kept locked up, but on this occasion he had managed to become possessed of a rifle, with terrible results.

Philip Stroh, Township of Carrick

On the night of April 1st, 1934, the dead body of Philip Stroh, age 60, farmer, Carrick Township, was found at cross roads about a third of a mile from his home. The body had been left to make it appear that it had been struck by an automobile.

As a result of an investigation by the Provincial Constable at Walkerton and an Inspector of the Criminal Investigation Branch, Earl Leffler, a grandson, who lived on the farm with his mother and grandparents, was arrested and charged with the murder, there being evidence that Stroh was killed in his own barn and the body taken to the place where it was found.

The trial took place on October 30th, 1934, at Walkerton, before Justice Makins and Jury, when the Jury returned a verdict of Not Guilty.

Otto Hietarinne, Township of Schneider

On April 18th, 1934, Otto Hietarinne was shot and killed in a shack at White Water Lake in the Township of Schneider, District of Algoma.

From investigation it was found the killing was the result of a drinking bout in which a number of Finlanders had taken part.

Sufficient evidence was obtained to arrest and charge Kusti Nisula with the murder of Hietarinne.

He appeared before Justice Makins for trial at Sudbury on October 3rd, 1934, when the Jury returned a verdict of Not Guilty and he was acquitted.

Constable Colin McGregor, St. Thomas

On May 7th, 1934, whilst Sergeant McEwen and Constable Colin McGregor of the St. Thomas Police Department were attempting to effect the arrest of Frank MacTemple and Frederick MacTemple, father and son, of 13 Queen Street East, St. Thomas, on warrants charging theft, both father and son drew revolvers in an attempt to resist arrest.

The elder MacTemple fired two shots, one of which struck Constable McGregor in the stomach and killed him. His shots also wounded his son, Frederick MacTemple.

After the shooting, MacTemple Senior escaped to the bush and managed to evade capture until early on the morning of May 9th, when he was arrested by members of this Force near the Village of West Lorne, Elgin County.

A charge of Murder was laid against both Frederick and Frank MacTemple, on which they are still awaiting trial.

This murder was committed within the City of St. Thomas, but very considerable assistance was rendered by the members of this Force, especially No. 2 District Headquarters, London.

Edmund Mackwood, Township of Currie

On May 3rd, 1934, Mrs. Anthony Mackwood, Lot 8, Concession 2, Township of Currie, District of Temiskaming, and her son Edmund Mackwood, were shot and wounded at their home by Valatan Kirn, a Jugo-Slavian settler.

Kirn had previously set fire to the Mackwood home and it was whilst Mrs. Mackwood and her son were trying to escape from the burning house that Kirn shot them. He afterward set fire to and completely destroyed his own home.

Edmund Mackwood died as a result of the gunshot wounds and Kirn was arrested and charged with Murder.

At his trial he was found insane and committed to an Asylum.

Frank Sigliano, Halton County

On July 13th, 1934, the dead body of Frank Sigliano, an Italian, was found in the rumble seat of a Buick Coupe near the home of one J. J. Henderson, 6th Concession, Township of Nassagaweya, Halton County.

Upon examination it was found that Sigliano had been shot twice through the head, causing death.

Sigliano was identified as an Italian and former resident of Hamilton, and had been dead about twelve hours when found.

Very extensive enquiries have been made by all branches of this Force, with the assistance of various Municipal Police Forces, but so far the murder of Sigliano has not been solved.

From evidence obtained it would appear that the murder was the result of an Italian gang fued. The investigation is being pursued relentlessly.

Mrs. Alwynne E. Viola Thompson, Toronto

On July 19th, 1934, the dead body of a woman was found beneath some bushes north of Blythwood Road, in the Township of North York.

The assistance of this Department was requested and an Inspector of the Criminal Investigation Branch was detailed to the case.

The body was identified as that of Mrs. Viola Thompson, 448 Ontario Street, Toronto, who had been missing from home for two days, and death had resulted from injuries to the head, supposedly caused by a large stone found near the body.

A very extensive investigation has been conducted by the members of this Force, the Toronto City Police and the York Township Police, but the guilty person has not yet been brought to trial.

Alex Raymond, Garson Township

On July 22nd, 1934, Alex Raymond, age 47, farmer of the Township of Garson, District of Sudbury, was killed by being struck on the head with a beer bottle wielded by his brother, Steven Raymond, during a drunken dispute.

Steven Raymond was arrested and charged with the killing of his brother and at his trial on October 3rd, 1934, sentenced to 18 months imprisonment on a charge of Manslaughter.

Claude Coats, Harrow

On August 3rd, 1934, Claude Coats, a Negro farmer of the Township of Colchester, County of Essex, was shot and killed by Wilbur H. Mulder, Negro, on the Highway between the 3rd and 4th Concessions of the Township of Colchester South, in the County of Essex.

Immediately after the murder Mulder disappeared and although a very extensive investigation has been carried on. not only throughout this Province, but also in the United States, no trace of Mulder has been found. The enquiry is being continued.

Peter Rogouskie, Bethany

On August 22nd, 1934, the dead body of a man, in an advanced state of decomposition, was found in a creek at Bethany, Ontario. Upon enquiry the body was identified as that of one Peter Rogouskie, a Russian carpenter who had been missing from his home for three weeks.

Investigation proved that the dead man had been strangled and the body placed in the water after death.

Evidence obtained led to the belief that Rogouskie had been murdered by Dymtro Bolejczuk, a Russian farm hand, as a result of jealousy over a young woman they were both paying attention to.

Bolejczuk was arrested and charged with Murder and an apparently strong case built up on the evidence collected, but at the trial on October 22nd, 1934, the Jury returned a verdict of Not Guilty.

Nathaniel Stoughton, Bagot Township

On September 19th, 1934, Nathaniel Stoughton, farmer, age 48, of Bagot Township, was so seriously assaulted by Cecil Riddle with a whiffletree that he died three days later in the Renfrew Hospital.

Cecil Riddle was named by the Coroner's Jury as being responsible for the death of Stoughton and a warrant was issued charging him with Murder.

He is now awaiting trial.

Mrs. Aurelia Vermilyea, Belleville

On October 4th, 1934, Mrs. Aurelia Vermilyea, widow, of Belleville, Ontario, was struck on the head by an unknown person and died from the result of her injuries.

This Department was called on for assistance and as a result of investigations made, Harold W. Vermilyea, son of the dead woman, was arrested at Ontario, California, brought back to Belleville and committed for trial on a charge of murder.

He is still awaiting trial.

ATTEMPTED MURDER AND SUICIDE

Mrs. Nora Doyle, Port Lambton

About 1 a.m. May 6th, 1934, a telephone call was received by our Sarnia Detachment that a murderous attack had been committed on Mrs. Nora Doyle at Port Lambton, Ontario.

Matthew T. Doyle and his wife are about 60 years of age and live with their two sons, Joseph and Clancy. Investigations by our Officers found that the boys had attended a dance near by and had left their Mother and Father alone in the house. When they returned at midnight they found the house in darkness and the doors locked. Their Mother admitted them to the house and when a lamp was lit they found their Mother was almost unconscious from the loss of blood, suffering from severe cuts on the head. Medical aid was summoned and Mrs. Doyle eventually recovered.

Her husband was missing, and after a prolonged search a small row-boat which had been tied to a dock near the house was found drifting on the river near Walpole Island. The body of Matthew T. Doyle was found in fish nets about 200 yards from his residence. After the Coroner made an examination of the body he decided that an inquest was not necessary, this being a case of suicide.

Previously, in January 1929, Doyle had attempted to murder his wife. At that time he shot and wounded her and then turned the revolver on himself. He was arrested and charged with Attempted Murder and Suicide and sentenced to seven years on each charge, to run concurrently. He had served five years in Kingston Penitentiary and had been out on parole about a year when this unfortunate tragedy occurred.

BLACKMAIL AND EXTORTION

At the request of the Crown Attorney, London, the District Inspector at No. 2 District Headquarters, London, was instructed to assist the London City Police in investigating the activities of an organized blackmail ring that had been operating in Middlesex County, with headquarters in the City of London.

The investigations disclosed rather an alarming state of affairs that had been in existence for some time and as a result Vincent T. Foley, Barrister, Frank Taylor Jr., Rosa Taylor, Mae Turnbull, Frank Taylor Sr., Gordon Erskine and Harry Taylor were arrested and charged with Extortion and Blackmail.

At the Fall Assizes on October 18, 1934, convictions and sentences were registered against the following:—

Frank Taylor, Junior	— 5 years in Kingston Penitentiary
Mae Turnbull	— 5 years in Kingston Penitentiary
Vincent T. Foley	— 4 years in Kingston Penitentiary
Frank Taylor, Senior	— 2 years in Ontario Reformatory
Rosa Taylor	—12 months in Mercer Reformatory

Gordon Erskine and Harry Taylor are still awaiting trial.

DEATHS FROM VIOLENCE AND UNNATURAL CAUSES

The following number of deaths from violence and other unnatural causes were reported to and investigated by members of this Force during the year:—

	1934	1933
Murder	15	11
Manslaughter	35	24
Suicide	85	98
Automobile Fatalities	153	127
Drowning	164	201
Other causes, i.e., shooting, burns, etc.	197	193
Total	649	654

In comparison with the preceding year, there is a decrease of five in the above reported fatalities over the same period 1932-33.

Auto fatalities, however, increased from 127 to 153.

The investigations and assistance rendered in these cases cause a great deal of work for the members of the Force, all of which is very necessary so that the full facts can be laid before the Coroner and Crown Attorney.

LIQUOR CONTROL ACT

There has again been a decrease in offences prosecuted by members of the Force under the provisions of The Liquor Control Act.

Prosecutions for all offences totalled 2,419, a decrease of 577 over the same period last year.

The folllowing table gives the prosecutions, convictions, dismissals, etc., also the fines imposed for violations of various sections of the Act during the year 1933-34:—

	Prosecutions	Convictions	Dismissals	Withdrawn	Committed	Awaiting Disposal	Fines Collected
Doctors giving Illegal Prescriptions							$
Drinking in Public Place	590	567	10	13	46		6,590.00
Drunk in Public Place	670	646	22	2	145		5,647.25
Having or Consuming in Hotel	2	2					200.00
Having Without Permit	314	260	36	18	99		18,250.00
Illegal Use of Permit	14	14			1		145.00
Infractions Liquor Control Board Regulations	67	58	7	2	5		900.00
In Possession of Liquor Without Board's Seal	37	37			2		605.00
Keeping in Unlawful Place	243	174	38	31	45		14,075.00
Miscellaneous Offences	30	21	6	3	2		1,025.00
Permitting Drunkeness in Private Residence	48	42	3	3	7		660.00
Sale or Keeping for Sale	194	118	49	27	118		
Supplying Liquor After Permit Suspended	2	2			1		100.00
Supplying Liquor to Minors	28	22	4	2	13		230.00
Unlawful Possession	155	127	15	13	73		6,090.00
Unlawful Purchase	25	24		1	1		575.00
Violation Section 54 by Druggists							
TOTAL	2,419	2,114	190	115	558		$55,092.25

COMPARATIVE STATEMENT OF PROSECUTIONS UNDER THE LIQUOR CONTROL ACT:

	1934	1933	1932
Prosecutions	2,419	2,996	4,274
Convictions	2,114	2,533	3,609
Dismissals	190	288	409
Withdrawals	115	175	256
Commitments	558	802	1,021
Fines Collected	$55,092.25	$83,499.25	$120,752.00
Confiscated Cars and Trucks	3,230.00	4,394.50	10,596.50
Confiscated Liquor	5,600.00	10,000.00	20,000.00

Decrease for Year 1933-34

Prosecutions	577
Convictions	419
Dismissals	98
Withdrawals	60
Commitments	244
Fines Collected	$28,407.00
Confiscated Liquor	4,400.00
Confiscated Cars and Trucks	1,164.00

There were 486 liquor permits seized and sent forward with a recommendation that they be cancelled. In each case where it was considered that the report of the officer justified the cancellation of the permit in question, the permit was forwarded to the Liquor Control Board recommending such cancellation. This was a decrease of 571 over the same period in 1932-33.

There were 376 samples of liquor forwarded to this office for analysis from various Police Departments throughout the Province, a decrease of 241 over the same period in 1932-33.

The Motorcycle Patrol has accomplished much good work in connection with the enforcement of The Liquor Contol Act. During the past year they were responsible for 259 prosecutions, the seizure and confiscation of 139 bottles of liquor and assorted wines, 55 gallons of alcohol and 1,033 bottles of beer, also seizing 5 automobiles which were being used in the transportation of the above liquor.

Approximately 263 gallons of alcohol were seized. Exemplary penalties have been imposed in the majority of cases to persons being found in possession of alcohol and quite frequently prosecutions have been instituted under The Excise Act as well as The Liquor Control Act. The amount of alcohol seized during the past year shows a marked decrease compared with that seized during the previous year.

Privileges of making home-brew beer for personal and family use are granted under the provisions of The Exise Act. There is no limit to the quantity a person can brew, which makes it very difficult to place any check on a traffic which has been continually growing since the inception of The Ontario Temperance Act.

To show the extent to which this practice is common throughout the Province, I find that up until October 31, 1934, the privilege of brewing beer has been granted to 179,475 persons.

MOTORCYCLE PATROL

In spite of and not withstanding all the warnings given by the members of the Motorcycle Patrol ,also by the Department of Highways and Safety Organizations in their educational campaigns by newspaper, radio and other channels, I regret to say there was an increase in accidents during the year, both fatal and non-fatal, and it is clear, from reports received, that excessive speed and not having the automobile under proper control must be given as the basic cause in the majority of all accidents reported.

The continued and altogether unwarranted death toll in connection with the operation of motor vehicles on our Highways is nothing short of a national calamity. So many of the deaths and maimings could be prevented if drivers would only use ordinary care and caution, being sure that at all times, and under all conditions, they have their automobiles under complete control.

The Inspector-in-Charge, Motorcycle Patrol, reports that Section 23 of The Highway Traffic Act has become increasingly difficult to enforce, due to the apparent general belief that the speed limit varies according to the particular point of the Highway, and that such speed limit is left to the judgment of the individual driver as traffic conditions permit, also that the general impression appears to be that once the driver is free of cities or towns, the mechanical capacity of the automobile he is driving is the limit.

He further reports that the records on file show that in fifty-five percent of the convictions registered under Section 24 of The Highway Traffic Act the minimum penalty has been imposed and that only in a very small number of cases has the provision regarding the suspension of driving privileges been applied, though the Section directs that suspension shall apply automatically for any period up to six months.

Whilst The Highway Traffic Act has been amended by the deletion of the restrictions regarding restricted loads in specified seasons, the practice of overloading still continues. The increase of license fees, as applied to commercial vehicles, has resulted in the reduction of licensed carrying capacity in many cases, in some instances it being found that the license carried provides for little more than the weight of the vehicle.

Fifteen standard scales, provided by the Department of Highways, were in operation at various periods during the year, and many cases of overloading, both in excess of license and tire capacity, were reported.

In continuation of the policy followed by members of the Force, that prevention is better than cure, minor offenders have been warned rather than prosecuted.

Under the Section dealing with lights on motor vehicles, 24,821 warnings were recorded and 25,880 warnings recorded for offences against other Sections.

Appended hereunder is a return giving the particulars as to prosecutions, penalties, etc., resulting from the work of the Motorcycle Patrol during the year:—

MILEAGE OF KING'S HIGHWAYS PATROLLED

King's Highways as of October 31, 1934	3,559
Number of Details	90
Approximate mileage assigned to detail units	39.5

PROSECUTIONS

Under H.T.A.	8,772	Fines	$59,053.96
" L.C.A.	261	"	5,342.40
" C.C.	295	"	1,217.00
Misc. Acts	237	"	1,291.70
Total Pros.	9,565	Total	$66,905.06
Licenses Suspended—237	—		

Warnings given and recorded—50,701
Five cars confiscated under the Liquor Control Act.
Eighty-seven stolen cars were recovered and returned to owners.

ACCIDENTS

Non-fatal on Highways proper	2,313
Fatal on Highways proper	120
Non-fatal at Railway Crossings	21
Fatal at Railway Crossings	8
Number of persons killed	140

MILES TRAVELLED ON DUTY

Miles travelled by Motorcycle Patrol	1,708,658
Miles travelled by car	7,657
Total	1,716,315

VOLUNTARY SECURITY PLAN

Number of cases in which form was used	733
Amount accepted under plan	$8,562.25

ESCORTS

Miles travelled on actual Escort Duty	7.828
Miles travelled account Escort Duty	17,475
Total mileage	25,303

STATISTICAL RETURNS

Return of prosecutions, convictions, dismissals, withdrawals, etc., by Districts, for offences under The Liquor Control Act covering the period November 1st. 1933, to October 31st, 1934:—

	Prosecutions	Convictions	Dismissed	Withdrawn	Awaiting Trial
No. 1 District Headquarters Windsor	104	74	13	17	....
No. 2 " " London	235	212	15	8	....
No. 3 " " Hamilton	113	93	11	9	....
No. 4 " " Niagara Falls	141	101	20	20	....
No. 5 " " Toronto	165	126	9	30	....
No. 6 " " Kitchener	251	221	24	6	....
No. 7 " " Barrie	174	154	17	3	....
No. 8 " " Belleville	215	200	14	1	....
No. 9 " " Perth	267	244	19	4	....
No. 10 " " Haileybury	271	237	26	8	....
No. 11 " " Sudbury	165	153	8	4	....
No. 12 " " Port Arthur	318	299	14	5	....
Total	2,419	2,114	190	115	....

Total fines imposed in connection with above prosecutions, $55,092.25

Return of prosecutions, convictions, dismissals, etc., (exclusive of offences against The Liquor Control Act) by Provincial Police Districts covering the period November 1st, 1933, to October 31st, 1934:—

	Prosecutions	Convictions	Dismissed	Withdrawn	Awaiting Trial
No. 1 District Headquarters Windsor	267	176	33	58	....
No. 2 " " London	950	788	103	59	....
No. 3 " " Hamilton	134	97	32	5	....
No. 4 " " Niagara Falls	394	263	101	30	....
No. 5 " " Toronto	155	123	24	8	....
No. 6 " " Kitchener	588	482	82	24	....
No. 7 " " Barrie	420	359	37	24	....
No. 8 " " Belleville	610	511	78	21	....
No. 9 " " Perth	897	774	84	39	....
No. 10 " " Haileybury	763	579	141	43	....
No. 11 " " Sudbury	590	436	119	35	....
No. 12 " " Port Arthur	712	573	95	44	....
Total	6,480	5,161	929	390	....
Motorcycle Patrol Returns	9,067	8,209	544	236	78
County Returns	477	364	78	35	....
Grand Total	16,024	13,734	1,551	661	78

Total fines imposed in connection with above prosecutions, $95,231.46.

Classified return of prosecutions, convictions, dismissals, etc., for all offences covering the period of November 1st, 1933, to October 31st, 1934:—

Offence	Convictions	Dismissals	Withdrawals	Awaiting disposal	Total	
					1934	1933
Abandoning Children	1				1	4
Abduction	2				2	5
Abortion	15	1			16	5
Abusive Language	2				2	
Aiding and Abetting						5
Affray	6				6	9
Arson	15	4	1		20	29
Assault, Aggravated	7				7	12
“ Bodily Harm	179	54	34		267	308
“ Common	356	86	60		502	482
“ Indecent	22	25	1		48	53
“ on Police Officer	17		1		18	15
Assisting Prisoner to Escape						1
Attempted Abduction						
“ Abortion						3
“ Arson			1		1	4
“ Assault						2
“ Breaking and Entering	5	3			8	5
“ Bribery						
“ Buggery	2	1			3	5
“ Burglary						
“ Carnal Knowledge	8	1			9	7
“ Fraud	1				1	4
“ Goal Breaking						5
“ Murder						4
“ Poisoning						
“ Rape	3	1			4	5
“ Robbery	1	1			2	
“ Suicide	12	1	1		14	8
“ Theft	7	2			9	18
Attending Cock Fight						
Betting						
Bigamy	4	2	1		7	6
Breach of Amusement Tax Act						
“ Bank Act						
“ Billiard and Poolroom Act						
“ Bread Sales Act	1				1	
“ Canada Temperance Act	4				4	
“ Children's Maintenance Act	6	2			8	6
“ Children's Protection Act	3				3	10
“ Customs and Excise Act	26	1			27	68
“ Dairy Act	1				1	1
“ Forest Fires Act	2	3			5	21
“ Game and Fisheries Act	48	3	3		54	7
“ Highway Traffic Act	937	80	54		1,071	1,180
“ Hotels Registration Act	3				3	4
“ Indian Act	31				31	19
“ Insurance Act	4				4	3
“ Juvenile Delinquents Act		1			1	9
“ Lord's Day Act	18				18	21
“ Master and Servant Act	37	16	6		59	108
“ Medical Act	2				2	
“ Mining Act						2
“ Narcotic Drug Act						
“ Offensive Weapons Act	33	2	4		39	78
“ Ontario Securities Act	7	5			12	12
“ Optometry Act						1
“ Other Provincial Statutes	24	5	11		40	36
“ Parent's Maintenance Act						1
“ Private Detectives Act						

Offence	Convictions	Dismissals	Withdrawals	Awaiting disposal	Total	
					1934	1933
Breach of Public Health Act	3		1		4	3
" Railway Act	50	1			51	5
" School Attendance Act		1			1	5
" Theatres and Cinematographers Act						
" Transportation of Fowl Act	6	1			7	15
" Vital Statistics Act						
" Weights and Measures Act						2
Breach of Peace	8				8	8
Breaking and Entering	514	42	5		561	715
Breaking Goal	3				3	2
Breaking Parole						6
Bribery	1	1	2		4	
Buggery	3				3	5
Burglary	30	2			32	40
Carnal Knowledge	29	12	3		44	37
Causing Bodily Injury	32	23	3	8	66	52
Causing Explosion						1
Concealment of Birth	5		1		6	
Conducting Lotteries						
Conspiracy	2	7	3		12	17
Contempt of Court	4				4	3
Corrupting Children	6	6	2		14	8
Corrupting Witnesses						3
Counterfeiting	2	1			3	4
Criminal Libel						
Criminal Negligence	30	17	4	1	52	55
Cruelty to Animals	32	6	3	1	42	33
Damage to Property	114	20	13		147	144
Discharging Firearms						2
Disorderly Conduct	238	50	4		292	219
Disorderly House (Inmate)	10		3		13	16
Disorderly House (Keeping)	10	3			13	6
Driving Whilst Intoxicated	171	36	15	3	225	224
Escaping From Custody	12	3			15	14
Extortion	3				3	14
False Pretences	120	38	14		172	160
Forgery	56	3	3		62	64
Fraud	27	3	4		34	33
Fraudulent Use of Trademark						1
Gambling	9				9	3
Games of Chance	11				11	9
Gaming House (Inmate)	27				27	7
Gaming House (Keeping)	15	4			19	14
Highgrading	2	1	1		4	2
Housebreaking and Theft	21				21	29
Impersonating an Officer						5
Incest	13	4			17	15
Indecent Acts	28	2			30	19
Indignity to Dead Body	2				2	
Injury to Animals	5	5	1		11	21
Insane Persons	86	15	2		103	98
Intimidation	17	2	2		21	7
Kidnapping						
Libel	1	1	1		3	2
Lotteries	1				1	3
Making Handbooks	3				3	4
Manslaughter	10	22	2	1	35	24
Miscellaneous Offences	41	8	5		54	35
Mischief	10	2	1		13	14
Municipal By-laws	54	9	2		65	32
Murder	2	4			6	6
Neglect of Children						

Offence	Convictions	Dismissals	Withdrawals	Awaiting disposal	Total	
					1934	1933
Non-Support	45	12	7	....	64	63
Nuisance	6	....	....	....	6	11
Obscene Language	1	....	....	....	1	3
Obstructing Police Officer	41	7	2	....	50	65
Perjury	12	1	1	....	14	30
Pointing Firearms	7	9	....	....	16	12
Poisoning	3	2	....	....	5	....
Procuring	....	....	....	....	....	1
Prostitution	7	....	....	....	7	9
Rape	4	3	....	....	7	10
Receiving Stolen Goods	86	28	5	....	119	166
Resisting Arrest	7	....	....	....	7	2
Robbery	21	4	....	....	25	14
Robbery Whilst Armed	10	1	1	....	12	21
Sedition	....	....	....	....	....	1
Seduction	7	11	1	....	19	21
Selling Tobacco to Minors	....	....	....	....	....	1
Shooting With Intent	7	2	2	....	11	8
Shopbreaking and Theft	18	1	....	....	19	66
Theft	991	203	63	....	1,257	1,503
Theft of Poultry	88	11	4	....	103	156
Threats	13	5	2	....	20	23
Trespass	26	6	3	....	34	33
Unlawful Assembly	22	4	....	....	26	....
Unlawful Association	....	....	....	....	....	....
Vagrancy	162	25	42	....	229	255
Wife Desertion	5	....	1	....	6	5
Wounding With Intent	23	10	....	....	33	27
Total	5,350	999	412	14	6,775	7,361
Highway Traffic Act cases prosecuted by Motorcycle Patrol	8,020	474	214	64	8,772	9,183
Liquor Control Act	2,114	190	115	....	2,419	2,996
Grand Total	15,484	1,663	741	78	17,966	19,540

Disposition of All Cases Prosecuted

Convictions	15,484
Dismissals	1,663
Withdrawals	741
On Remand, Awaiting Trial, etc.	78
Total	17,966

COMPARATIVE STATEMENT

A comparative statement of prosecutions, etc., under all Acts and Statutes for the year ending October 31st, 1933, and October 31st, 1934:—

	1934	1933
Prosecutions	17,966	19,540
Convictions	15,484	16,838
Dismissals	1,663	1,727
Withdrawals	741	943
On Remand, Awaiting Trial, etc.	78	32

Classification of penalties imposed upon persons convicted for all offences against the Criminal Code and other Dominion and Provincial Statutes:—

Imprisonment as Penalty	1,823
Imprisonment in Default of Fine	537
Committed to Asylum	107
Fined and Fines Paid	13,914
Sentence Suspended	1,428
Otherwise Disposed of	157
Total	17,966

Arrested with or without warrant and persons summoned for offences against the Criminal Code and other Dominion and Provincial Statutes:—

Arrested with Warrant under Criminal Code and other Statutes	1,436
Arrested with Warrant under Liquor Control Act	178
Arrested without Warrant under Criminal Code and other Statutes	1,922
Arrested without Warrant under Liquor Control Act	1,094
Summoned, etc.	13,336
Total	17,966

A classification of the ages of persons prosecuted for offences against the Criminal Code and other Dominion and Provincial Statutes (exclusive of The Liquor Control Act and Highway Traffic Act cases prosecuted by Motorcycle Patrol):—

Age 1-10	21
" 10-15	146
" 15-20	962
" 20-30	2,535
" 30-40	1,495
" 40-50	932
" 50-60	449
" 60-70	173
Over 70	48
Companies	14
Total	6,775

A classification by nationalities of persons prosecuted for offences against the Criminal Code and other Dominion and Provincial Statutes (exclusive of The Liquor Control Act and Highway Traffic Act cases prosecuted by Motorcycle Patrol):—

Canadians	5,247
Americans	122
English	275
Indians	112
Irish	50
Italians	64
Poles	144
Russian	63
Scotch	87
Other Nationalities	597
Companies	14
Total	6,775

Classification of the sex of persons prosecuted for all offences against the Criminal Code and other Dominion and Provincial Statutes (exclusive of The Liquor Control Act and Highway Traffic Act cases prosecuted by Motorcycle Patrol) :—

Male	6,473
Female	288
Companies	14
Total	6,775

Classification of marital state of persons prosecuted for all offences against the Criminal Code and other Dominion and Provincial Statutes (exclusive of The Liquor Control Act and Highway Traffic Act cases prosecuted by Motorcycle Patrol) :—

Married	2,935
Single	3,725
Widows	13
Widowers	88
Companies	14
Total	6,775

Number of Search Warrants Executed

Under the Criminal Code	1,933
Under The Liquor Control Act	6,164
Number of Arrests for other Forces	227
Summonses served for other Forces	

STOLEN PROPERTY RECOVERED

Property that had been reported through various sources as stolen was recovered by members of this Force to the value of $103,292.85.

CONCLUSION

Before closing this report I wish to thank you for the helpful and sympathetic manner in which you have received any proposals I have laid before you either in the matter of law enforcement or for the welfare of the members of the Force, also to thank the Deputy Attorney-General and his staff for their ready assistance and advice given at all times.

I would like here to express my appreciation of the close cooperation of the Chief Commissioner of the Liquor Control Board in the many matters pertaining to the enforcement of The Liquor Control Act and to thank all Municipal Police Forces of the Province, the Royal Canadian Mounted Police, the Canadian Pacific and Canadian National Railway Police Forces, also Provincial and other Forces outside the Province for their effective assistance and ready cooperation during the year.

I also take this opportunity of thanking the Press for their assistance and consideration during the year, and I desire also to express my appreciation to all ranks of the Force for their loyal support and faithful attention to duty during the year, and to place on record the kind and helpful manner in which County Crown Attorneys and Magistrates have encouraged and assisted the members of the Force in matters appertaining to their duties.

Respectfully submitted,

Victor A. S. Williams,
Commissioner of Police for Ontario.

PROVINCE OF ONTARIO

Department of

Northern Development

Report of Operations under The Northern Development Act, R. S. O. 1927, and The Colonization Roads Act, R. S. O. 1927

AND AMENDMENTS

For the Year Ending 31st October

1934

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

ONTARIO

TORONTO
Printed and Published by T. E. BOWMAN, Printer to the King's Most Excellent Majesty
1935

To His Honour Dr. Herbert A. Bruce,
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

The undersigned has the honour to present Report on Operations under the Northern Development Act, R. S. O. 1927, and amendments, for the fiscal year ending 31st, October, 1934.

Peter Heenan,
Minister.

Toronto, October 31st, 1934.

HONOURABLE PETER HEENAN.
Minister of Lands and Forests.

I have the honour to present herewith the Report on the construction and maintenance of roads and bridges and other operations, carried on under the provisions of the Northern Development Act, R. S. O. 1927, and amendments during the fiscal year ending the 31st October. 1934.

R. A. CAMPBELL.
Deputy Minister.

Toronto, October 31st, 1934.

REPORT OF THE CHIEF ENGINEER

Section 11 (B), Roads and Bridges.

Following the policy of recent years the Department was again designated as the outlet through which appropriations for Unemployment Relief should be distributed in return for the improvement and development of facilities. The operations for the year were accordingly projected with this objective, both in respect to conditions local to the operations, and to the Province at large.

Early in the year it became evident that substantially all men employed the previous year were clamouring for re-employment, and that their numbers were augmented, on the one hand by the annual class of boys passing on to manhood, and by those whose private resources had reached a low ebb, after carrying themselves until this time. These were now requesting means to enable them to avoid accepting unearned relief.

As in previous years the residents local to the operation were employed in Settlers' Camps and those from outside municipalities in Road Camps.

The selection of those for employment in Settlers' Camps rested with local Relief Officials, and for Road Camps, by allotment arranged through the Department. The type of man in both cases was generally of a high order, and the record of work performed, considering their previous training, was commendable.

From April 1st, the labour rate was raised to $2.00 per day and the morale of the men mounted accordingly, at the same time, both Department and District Offices became inundated with men seeking employment who hitherto had been unheard of.

Early in the summer months it was noted that Agricultural, Pulp and Wood Industries were having difficulty obtaining men. In July, Settlers' Camps, except those where no other employment was available, were closed out, and from that time forward, as Road Camps completed their sections they were similarly dealt with; it it satisfactory to note that the men so cut off were in the main absorbed, also that many others in the camps left for their former or new jobs. The recovery in the British Isles was particularly singled out by the number proceeding there directly from the camps to definite employment.

During the year, the completion of programs, and the projection of others, made reorganization and reallotment of areas necessary in the District offices. These, formerly ten in number, were increased to eleven, with the establishment of a new one at Blind River, and their bounds revised to permit more efficient supervision.

Direction and Supervision.

Field liaison by the Department was effected through the eleven District Engineers, and the Engineer Colonization Roads, who had under his supervision four Division Engineers.

Electoral Districts.

Normal Northern Development operations as detailed in the appendices were carried out in the following Electoral Districts:

Algoma
Cochrane North
Cochrane South
Fort William
Kenora
Manitoulin
Muskoka
Nipissing
Parry Sound
Port Arthur
Rainy River
Renfrew North
Sault Ste. Marie
Sturgeon Falls
Sudbury
Temiskaming

Unemployment Relief Schemes were operated in the above, with the addition of the following:

Addington
Haliburton
Hastings East
Hastings West
Lanark
Norfolk
Peterborough
Renfrew South
Simcoe East
Victoria

Direct Expenditure. Construction and Maintenance. Northern Development.

As detailed in Appendix "A" the major items under this head were repairs to roads and bridges, dragging, gravelling and ditching.

In addition, miscellaneous works summarized below to avoid an unwieldy schedule, indicate a similar trend.

Crushed stone retread. 25.87 miles; new road constructed, 11.65 miles, gravelled 14.56 miles; old roads gravelled. 51.43 miles: pavement repairs, 13.30 miles; dust laying material used. 3.066 gallons Calcium Chloride; curves built on existing roads, 150 miles; shoulders improved, 54.50 miles; rip rap laid. 3,908 cubic yards; gravel stock piled. 23.035 cubic yards; crushed stone stock piled, 3.979 cubic yards; roads brushed and burned. 174.60 miles; grass and weeds cut and burned, 488.75 miles; ditches cleaned. 484.12 miles; offtakes built, 11.35 miles; creeks cleaned, 5.97 miles; culverts cleaned of ice and snow. 757. of debris. 277, and repaired. 328; guard cable used, 5,654 feet. guard rail erected. 19.203 feet, and repaired, 96.268 feet; posts used, 2,946, and painted. 8,852; bridges protected from ice, 3, dismantled, 23; piles driven. 2,680; standard road signs erected. 779, repaired. 482, repainted, 2,658; lettered signs erected, 201; ferry round trips, 19.431. covering 4.262 miles; surveys made. include 30 road traverses totalling 268.75 miles; 118 curves totalling 9.85 miles; 22 drainage schemes totalling 34.90 miles; 8 railway crossings totalling 10 miles; 4 gravel pits totalling 87 acres. and 5 right-of-ways totalling 92.5 acres. Machinery overhauled included 32 power graders, 67 horse drawn graders. 5 compressors, 4 cement mixers, 5 ploughs, 6 scrapers, 39 tractors, 4 boats. 10 department cars, and 17 trucks; during the winter snow-ploughing amounted to 2,508 miles; raking oversized stones from roads, 458 miles; in summer painting centre strip 18.5 miles and whitening 2,355 guard stones; stone fill for washouts and drains amounted to 1,621 cubic yards. Amongst the less usual items were the construction of a ferry shipway and building a temporary district office to replace that destroyed by fire in March, 1934.

Agreements.

Appendix "B" records the work accomplished by municipalities who availed themselves of the opportunity of improving their facilities on a dollar for dollar basis.

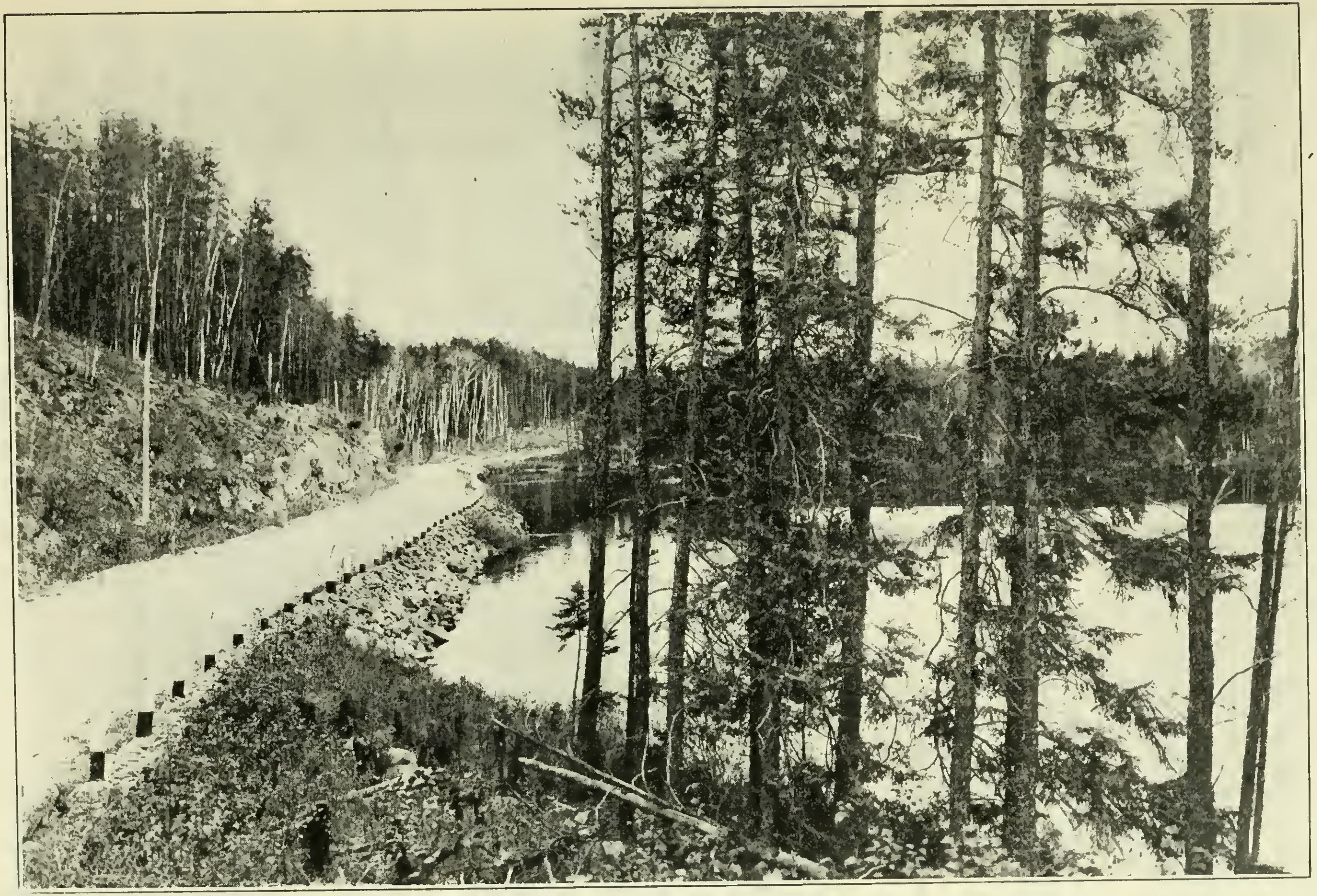
With a few exceptions all Districts participated.

Unemployment Relief Work.

The above heading, together with that of the Trans-Canada Highway which follows, comprised the major Department expenditure for the year, and consequently. the record amount of work performed, which is set out in Appendix "C" and the summary below.

It is noted that in addition to many miles of new work during the year, the demand for the protection of previous years' work has brought to prominence, gravelling, re-gravelling and crushed rock,— also, the mounting public use of these new facilities is reflected in the dragging and maintenance. For the same reason as previously noted, the additional work to this schedule is summarized below:

New road constructed, 246.85 miles; gravelled, 179.12 miles; surfaced, other materials, 31.85 miles; new gravel, old roads, 354.65 miles; pavement repairs, 6 miles; 14 curves built on old road totalled 12.61 miles and 10 were banked, totalling



Kenora — Fort Frances Road.

4.73 miles: roads widened totalled 161.97 miles; shoulders repaired. 79.78 miles. and rip rap placed. 29.024 cubic yards; gravel stock piled. 18.856 cubic yards: crushed stone, 9,974 cubic yards: existing roads brushed and burned, 478.75 miles; grass and weeds cut and burned. 223.6 miles; corduroy laid totalled 5.97 miles and lifted 4 miles; ditches cleaned. 292.57 miles; offtakes built. 68.55 miles; creeks cleaned, 29.15 miles; culverts cleaned of ice. 496; debris. 253, and repaired, 324; guard cable used, 13.307 feet; guard rail erected, 84,455 feet, and repaired, 11.350 feet; posts erected. 9.467. and painted. 3.643; bridges protected from ice. 6; dismantled, 3; piles driven, 2.329; standard road signs erected. 406; repaired, 15; repainted. 15; lettered signs erected, 15. and lake or river signs. 48; surveys. 12 roads traversed totalling 266.55 miles. 19 curves totalling 1.90 miles. 3 drainage totalling 5.03 miles. 1 railway crossing totalling 1 mile: oversized stones raked off 61 miles. and stone fill in washouts, 27.451 cubic yards. At Rondeau Park and Turkey Point. 914 acres were cleared and thinned: 422 acres grubbed. and 60 acres levelled for playing fields.

Trans-Canada Highway.

Reference to Appendix "D." and the summary of the works below will indicate that another substantial reduction has been made in the gap remaining before all Ontario will be linked by road. The completion of the section toward the west. and the concentration easterly, along the North Shore of Lake Superior. is reflected in the reduction in earth excavation and the increase in rock.

Other work additional to Appendix "D" is summarized as follows:

Rip rap placed. 28.621 cubic yards; gravel stock piled, 2.858 cubic yards; brush cut and burned along right-of-way, 36.52 miles. grass and weeds. 19.84 miles; ditches cleaned. 42.90 miles; offtakes built. 7 miles: creeks cleaned. 4.02 miles; culverts cleared of ice. 29. debris. 21. and repaired. 20; guard rail erected. 153,101 feet; posts set. 8.057. painted. 7.372; piles driven, 479; bridges dismantled, 2; standard road signs erected. 274: lettered signs, 6, and river or lake signs. 309.

Direct Relief.

The larger appropriation for General Unemployment Relief, and the Trans-Canada Highway. permitted a reduction in that for the above. and appendix "E." and the summary below, indicates a proportionate reduction in the amount of work accomplished.

New road constructed, 7.04 miles. gravelled, 5.90 miles; new gravel on old roads. 0.7 miles: dust laying material used. 477 gallons: roads widened. 2.2 miles. and shoulders improved 8.42 miles; gravel stock piled. 3.381 cubic yards. crushed stone. 552 cubic yards; brush cleared and burned along right-of-way. .48 miles. grass and weeds, 14.5 miles: ditches cleaned, 19.3 miles; offtakes built. 3 miles; creeks cleaned, 3 miles: culverts cleared of ice. 103, debris. 153. repaired. 6; guard rail erected, 10,920 feet: posts painted. 715; standard road signs erected. 17. and lettered, 83; centre strip painted. 4.5 miles: guard stones whitened. 550. and stone fill, 1.816 cubic yards.

Recapitulation.

Appendix "F" is a summary of the preceding appendices and includes an additional summary of some of the miscellaneous items necessary for the efficient operation of the Northern Road System.

DISTRICT REPORTS

No. I—Muskoka and Parry Sound—E. J. Hosking. Huntsville.

Direct Expenditure. Construction and Maintenance.

The only work, other than the maintenance of the Ferguson Highway, and all secondary trunk roads, was the laying of a retread surface, 3 inches thick and 20 feet wide, between Scotia Junction and Burk's Falls, a distance of approximately 10 miles.

Unemployment Relief—Road Camps.

Eight Road Camps were operated and some excellent work was accomplished. These camps were situated as follows:

2 on the Huntsville-Dwight-Dorset Road.
2 on the Windermere Road in Watt Township.
2 on the Falkenburg-Rosseau Road.
1 on the Gravenhurst-Bala-Parry Sound Road.
1 on the Parry Sound-Pointe Au Baril Road.

Settlers' Camps.

This class of camp was established all over the two electoral districts, and several hundred men were kept employed from December 1st, 1933, to June 30th, 1934. A great many revisions were built, thereby improving alignment and grades, the most notable, in the two districts, being diversions between Huntsville and Dwight, Dwight and Dorset, a series of short diversions between Falkenburg and Rosseau, and a diversion between Parry Sound and Rosseau 2¾ miles long, which eliminated five railway crossings. In all, there are approximately 52 miles of new road graded and partly gravelled.

On the Gravenhurst-Bala-Parry Sound Road, between Mactier and Hayes Corners, an eight mile diversion was constructed.

Throughout the two electoral districts six concrete and two creosoted timber bridges were built and two concrete bridges widened to conform to the needs of the road.

Nipissing District.

The Algonquin Park, which is in Nipissing District, was supervised from the Huntsville Office, there were 7 Road Camps in operation during the fiscal year. The work carried out was the clearing, grubbing and grading of approximately 20 miles of new road, a monthly average of 800 men were employed.

A contract was let for the clearing, grubbing and grading of 8½ miles between Algonquin Park Station and Whitney, and this work was completed the latter part of October.

No. II—Nipissing, Sturgeon Falls and Renfrew North—G. A. White. North Bay.

Direct Expenditure, Construction and Maintenance.

In all three Electoral Districts, the regular Northern Development Work was performed, in the main, on Trunk or Secondary Roads. In North Renfrew the Expenditure was applied to the Trans-Canada.

As detailed in Appendix "A," the principal items were gravelling, clay surfacing, ditching, dragging and repairs.

Unemployment Relief.

The expenditure under the above head was applied to Trunk, Secondary and Township Roads, and, as indicated in Appendix "C," the main items are similar to those above.

Trans-Canada Highway.

The principal operations during the year were between Point Alexander and North Bay. All of the work was performed under the regular Northern Development expenditure, and the Unemployment Relief Scheme.

From Point Alexander to North Bay, the road is practically completed, but further gravelling is necessary.

Trans-Canada Highway — Mattawa-North Bay Section — Third Sink Hole After 9 Box Charge.

During the year Road Camps were paid off as their sections were completed, and by October, 1934, all had been closed.

Direct Relief.

Operations under this heading were in the Electoral District of Sturgeon Falls only. They commenced November, 1933, and extended to May, 1934. As detailed in Appendix "E," they consisted mainly of maintenance work.

No. III—Sudbury—A. M. Mills, Sudbury.

The principal expenditure in this District was on Settlers' Camps and Road Camps; the latter were established:

1 on the North Bay-Sault Ste. Marie Road.
1 on the Sudbury-Cartier Road.
2 on the Chapleau-Iron Bridge Road.
1 on the Westree-Gowganda Road.

Construction.

Authorization was given for bringing the North Bay-Soo Road up to Trans-Canada Standard. After a survey establishing better alignment and grades, work was carried out on the Coniston-Hagar Section, and five and a quarter miles were completed. In addition, these construction camps, with the assistance of two power maintainers, kept the entire twenty-six miles in repair.

During the year two factors complicated operations,—the first, a high tension power line along the road necessitated light and careful use of explosives in heavy rock; the second. the extraordinary severe winter, when temperature fell as low as 64 degrees below zero.

In addition, the Sudbury-Cartier Road was opened to the latter point, and on the Chapleau-Iron Bridge Road, four and one half miles were completed, and an additional five miles of right-of-way cleared.

Maintenance.

All Trunk and Secondary Trunk Roads were maintained under the Patrol System. Patrols were established, consisting of a foreman, a team and teamster, and one extra man, and their beat ranged from seven to ten miles. As conditions required, they were aided by two mechanical graders.

No. IV—Sault Ste. Marie—R. A. McAllister, Sault Ste. Marie.

Extensive work was carried out through the entire District during the past year and very satisfactory results were obtained for the amount expended.

Under Northern Development direct expenditure comprised general maintenance and repairs. One new bridge was built and seven were repaired. Dangerous fills were widened and 5.878 lineal feet of guard-rail erected.

On the Soo-Sudbury Trunk Road there is 2.9 miles of Retread Pavement extending east from the Soo. This pavement, with a 3½ inch thickness constructed by contract for the Department in 1932, came through the hard winter in first class condition.

All organized Municipalities carried on road work under their Municipal Agreements to which the Department contributed on the dollar for dollar basis.

Nine Road Camps were established on the Soo-Batchawana Road Extension in April giving employment to 850 men. Survey parties ran 40 miles of preliminary line and 39 miles of final line on the Soo-Batchawana Extension. Very satisfactory results were secured from the camp crews. Three new bridges were built.

Road camps were also operated at Frater, South Goudreau. Hawk Junction, Agawa Bay and Orecana Mine Road. These camps were chiefly engaged in the improvement and extension of existing roads along the A. C. R.

An extensive program under Settlers' Camps was carried on throughout the various townships, giving employment to 600 men, 20 trucks and 21 teams. The outstanding works under this schedule were the Kirby Diversion; Michipicoten Harbour Road, and Dead Man's Road Diversion on the Searchmont Road.

The tourist business enjoyed by this District was a great improvement over the past three years. but still was far below its previous record. The pulp mill operated continuously throughout the year, but the Algoma Steel Plant's operation only gave 10% of their capacity employment.

No. V—Temiskaming—D. J. Miller, New Liskeard.

Northern Development Expenditures.

Under this heading the most important item carried out during the past year was the laying of a retread surface on the highway between Cobalt and New

Liskeard. This was satisfactorily completed with the exception of one mile through North Cobalt where a revision was in process of construction and the road bed had not consolidated sufficiently. The work was done by contract which was extended to include short portions of the Highway north of New Liskeard and south of Cobalt.

The Blanche River Bridge on the highway near Round Lake which was commenced in the previous year was completed and opened for traffic. At this point a narrow and unsafe timber bridge was replaced by a new steel and concrete structure of 120 ft. span carrying a 24 ft. concrete roadway. The highway was straightened and improved at this point by the construction of one-half mile of new 30 ft. roadway. All work was done by the Department using day labor with the exception of the steel erection on the bridge, which was by contract.

One mile south of this bridge, work was started to eliminate another danger spot when a reinforced concrete bridge of 40 ft. span was erected over Stoney Creek. Grading of approaches will be carried on during the winter and it is expected that the bridge will be open for traffic early next spring.

The elimination of still another danger spot was undertaken when work was started to replace the old timber trestle at Calamity Gulch, three miles north of New Liskeard, by a modern steel and concrete bridge. The foundation work was under contract. It is expected that the steel erection will be done during the winter and approaches graded so that the bridge may be opened for traffic early next summer. When completed it will be a five span steel bridge of the viaduct type resting on concrete foundations and carrying a 24 ft. concrete roadway. Overall length is 324 ft.

At Greenwood's Bridge (lot 1 Casey-Brethour Boundary) a 30 ft. steel approach span was removed and replaced by a 60 ft. span in an attempt to overcome the sliding of the banks of the river.

A new road two and three-quarter miles in length was built from the highway near Goward to the Cuniptau Mine for the purpose of assisting in opening up a new and promising mining field.

The Matachewan Road was also improved and six miles of new grading and gravelling undertaken.

Thirteen organized townships and one village made Road Agreements with the Department whereby they received 50% of their road expenditures from the Government.

Unemployment Relief Expenditures.

Early in the winter a large programme of Unemployment Relief Works was undertaken and continued into the spring and early summer. The past winter was one of the most severe on record and working conditions were very trying at times, but much useful work was accomplished. The work was distributed over the whole district so as to make it accessible to as many as possible and was all done by settlers' groups, the workmen living at home.

Widening of the highway between New Liskeard and Englehart was undertaken, 12 miles being widened to 30 feet.

A bad jog at the Harley-Dymond boundary was improved by a revision in alignment.

A half mile revision 3 miles south of Latchford to straighten the highway was completed.

Widening work was also carried out in places on the Elk Lake and North Temiskaming roads to the extent of 8 miles on the former and 6 on the latter.

Two right angled turns were rounded with 10° curves.

No. VI—South Cochrane—E. A. Cash, Matheson.

The bulk of the work having been carried out under Statutory Unemployment

Relief Funds, the expenditure charged to Northern Development Funds was comparatively small.

Construction.

(1) The Gravelling by contract of the Kirkland Lake-Quebec Boundary Road.

(2) The construction of the Frederickhouse Lake Dam. This dam when completed will raise the level of Frederickhouse Lake.

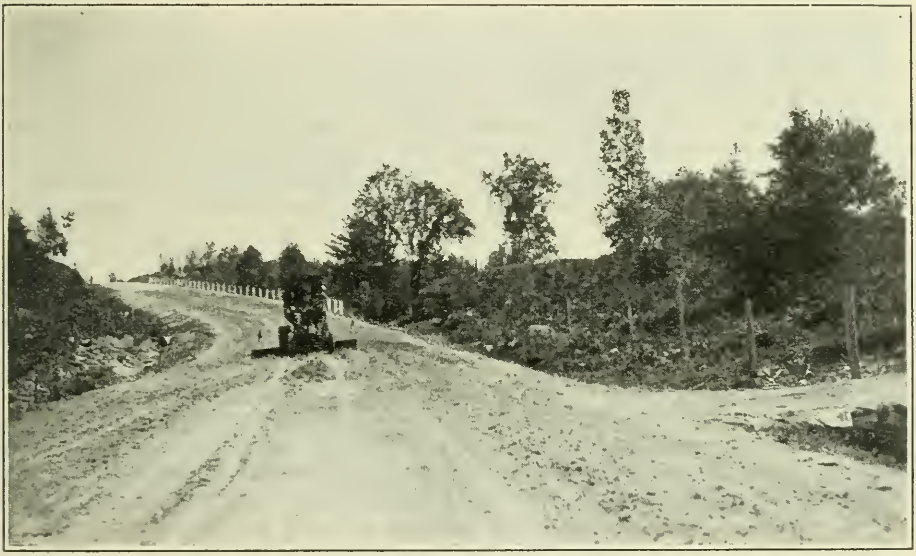
(3) Three organized townships received assistance under agreement.

Surveys.

(1) Surveying and locating the proposed South Porcupine-Matachewan Road.

(2) Surveying and locating the proposed Swastika-Matachewan Road.

(3) Surveying and locating the South Porcupine-Schumacher revision.



Trans-Canada Highway — Surfacing Hill.

Maintenance.

All main trunk, and secondary trunk roads were continuously patrolled during the summer months.

General.

The Local Office for the District of South Cochrane is located at Matheson and the District is divided into the following Sub-districts:

(1) Timmins
(2) Porquis Junction
(3) Matheson
(4) Swastika

Garage.

The District equipment was brought to Matheson in the fall and overhauled during the winter months.

Warehouse.

All requisitions for equipment and supplies other than food supplies were issued by the Clerk or the Engineer through the District Office. Job requisitions for equipment were submitted by the Foreman in charge of the work and through the warehouse charged directly to that particular job.

No. VII—North Cochrane—W. B. Hutcheson, Cochrane.

Direct Relief.

Up to December 1st, 1933, the District Engineer also acted as Relief Officer in the North Cochrane District. All relief granted was worked out on the roads at the standard rate of wages, the greater percentage of the work being carried out on the township roads.

Statutory-Unemployment Relief (Settlers' Camps)

Practically all the work carried out in the District during the past fiscal year was under the above scheme, which was commenced on November 15th, 1933, and continued through to the 1st of August, 1934. This included all the necessary construction work in the District, and during the period, granting of direct relief was reduced to a minimum. Under this scheme considerable re-gravelling was carried out, including the sections from Cochrane to Driftwood, Gregoire Mills to Fauquier, also from Reesor to Hearst.

Northern Development.

All necessary maintenance work throughout the District was carried out under the above scheme.

During the winter of 1933-34, our mechanical grading equipment was given a thorough overhauling and although the following season, owing to the continued long period of wet weather, made it very difficult to keep our roads in proper condition, the continuous dragging programme was maintained, so that our main and secondary highways were kept in fair shape.

Two other important pieces of work carried out under the above scheme included the re-construction of the Mattawishkwia River bridge on the Hearst-Coppell Road, where three 60 ft. timber spans were built to replace the three old spans which had become unsafe for traffic, and also, the construction of a shipway for wintering our Ground Hog River ferry. This latter structure was of timber construction, on pile foundation.

During the open water period, our ferries over the Abitibi and Ground Hog Rivers gave continuous service with very few, and no lengthy hold-ups.

Proposed Trans-Canada Highway.

In the latter part of May, a commencement was made on the construction of a 125-man camp situated at Mileage 275½, Algoma Central Railway, and on the route of the proposed link of the Trans-Canada Highway between Hearst and Hornepayne. The camp was completed by the middle of June, when the cookery was taken over by Messrs. Crawley & McCracken, and road construction was commenced. Work was continued throughout the season from the camp, and also by settlers in the Coppell area, considerable progress being made. With the exception of claying and gravelling, some seven miles of highway have been completed.

Continuous with the construction work, a location party was kept in the field, and the proposed route located to the westerly end of the District. On the completion of the above location work, the party continued through to Hornepayne in the Sault Ste. Marie District, tying in with the construction work in progress at that point.

No. VIII—Fort William—E. Smith, Fort William.

The chief work carried on during the year in this District was that section of the Trans-Canada between the city of Fort William and the Kenora boundary. There were twenty-one road camps operating for the full year on this section, so that this part of the Trans-Canada Highway was opened for traffic in the month of June. The camps, for the remainder of the year, were gravelling and bringing the road into shape for future traffic. Practically all of these camps were closed down in the month of November.

Three camps operated for the full year on the International Highway. These were used in regrading, ditching and shouldering, and preparing the sub-grade for retread paving. There was also one gang consisting of Canadian Legion men. These lived in the city of Fort William, going out to work each day by truck, and were used in opening up ditches and grading the shoulders of the road south of the city.

A contract was let for the balance of the retread on this highway, the rock being crushed during the winter months, and work of laying the pavements commenced in the spring. Through adverse weather conditions the work on this pavement was not quite finished, and it will be necessary for the contractor to complete this retread in the coming spring.

In the townships, a certain amount of work was carried on in the winter as a relief measure. This consisted of gravelling, ditching, clearing right-of-way. Where settlers were located close to the Trans-Canada Highway they were employed there and allowed to live at home. At a few points in the District, where men were on relief, foreman and tools were supplied by the Department, and the men required to work out the amount received as direct relief.

A certain amount of damage was suffered by high water in the spring with the result that a number of bridges were washed out. The North Pier of the Pine River bridge was undermined, and toppled into the stream, dropping the steel truss into the bed. Also a bridge on the Oscandago River washed out and up to the present it has not been replaced. There were in addition a number of small bridges on the Trans-Canada Highway washed out, these have all been replaced.

Port Arthur District.

The chief work carried on in this District during the past year has been on the Trans-Canada Highway, the section between Loon Lake and Nipigon being almost completed by the end of the year, only two road camps will be operated this coming winter. On the section of the Trans-Canada between Nipigon and Schreiber, there were eleven road camps opened up the first of the year to take care of approximately 1,000 men who were moved in from the North Bay District. Work was carried on throughout the winter, and in the early spring, contracts were let for the section between Nipigon and the Pays Plat, the contractor taking over the camps and men. The section between Pays Plat and Schreiber was not placed under contract, and the camps were operated by the Department; such progress being made that the section of the highway, between Nipigon and Schreiber, will be completed and ready for traffic in the summer of 1935.

Work was carried on throughout the year on the Dawson Road, there being one road camp operated by the Department on this highway, also two groups of men, who are residents of the city of Port Arthur and are taken to and from work each day by truck, many of them living at home.

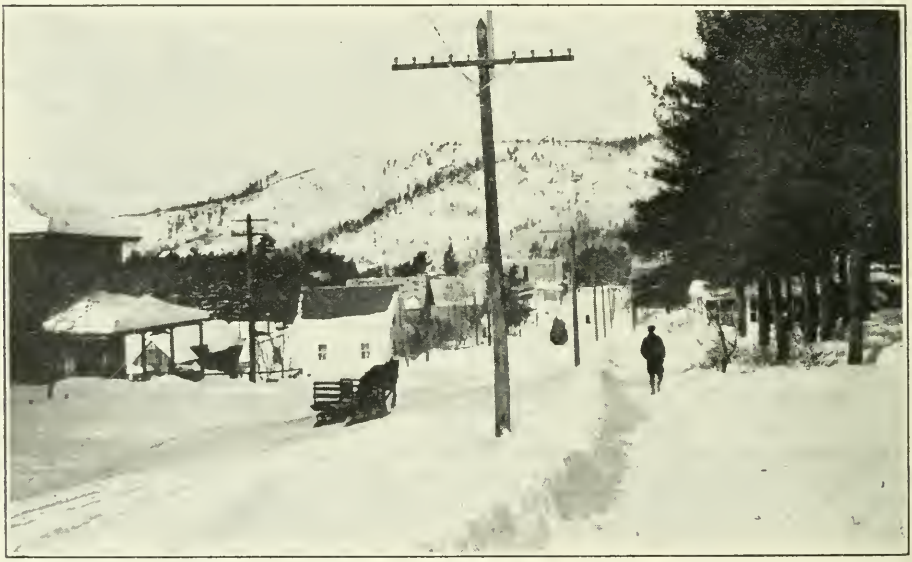
Besides the above, there was one settlers' gang employed on this highway also, these were local farmers who lived adjacent to the Dawson Road. In a number of cases, where men were on direct relief, the Department of Northern Development furnished the foreman and the necessary tools, and the men worked out their relief at different points throughout the District.

Road work was carried on throughout the year in the townships, both organized and unorganized. In practically all cases, this work was to help farmers who were in need of relief.

It was necessary, on account of the excessive snow conditions, to plough the main highways so that communication could be kept open with the different highway camps.

No. IX—Kenora—C. Tackaberry, Kenora.

During the past fiscal year, work in the Kenora District may be classed under four headings, as follows: Northern Development, Unemployment Relief, Trans-Canada Highway, and Direct Relief.



Trans-Canada Highway — Through Mattawa, Looking North.

Northern Development.

Under Northern Development expenditures, general maintenance work was carried on, such as re-gravelling, repairing culverts and bridges, and brushing. All gravel roads were patrolled and the main roads gravelled when required.

Two agreements between the Department of Northern Development and municipalities were carried out.

Unemployment Relief.

The most important work carried on under this scheme was the construction of the Sioux Lookout-Dinorwic Highway. Four camps in operation during the year—11 miles of right-of-way were cut, 20 miles stumped, 8.5 miles graded, 12 miles partially graded and 15 miles gravelled.

Two camps were in operation on the Fort Frances Highway, but were discontinued in October when a contract was let calling for the completion of thirty-five miles of road between Kenora and Fort Frances.

One camp was in operation on the Hudson-Sioux Lookout road.

Rehabilitation work was done on settlers' roads and bridges in the vicinity of Kenora and Dryden.

Trans-Canada Highway.

During the winter. 30 camps were in operation on the Trans-Canada Highway, 16 between Dyment and English River and 14 between Vermilion Bay and Kenora. In the month of May a contract was let for the completion of the grading of that portion of the Trans-Canada Highway from the junction of the Fort Frances Highway 30 miles east toward Vermilion Bay. The construction of the balance was completed by day labour.

On the "A" section of the Trans-Canada Highway, Ignace to English River, all camps have been closed as this section is now completed. The "B" section, from Dyment to Ignace, will be completed by the end of December.

Direct Relief.

The employment of recipients of direct relief on the roads was discontinued the latter part of November, and on the 1st of December, 1933. the men employed on road work were paid on a cash basis of 15c per hour.

No. X—Rainy River-Fort Frances—R. T. Lyons, Fort Frances.

The main undertaking during the year was the work carried out on the Kenora Highway. This work, although in the Kenora District, was supervised and handled from the Fort Frances office, on account of its inaccessibility from Kenora. Three road camps were established, and employment given to an average of 400 men, and by the end of the year eight miles of highway were completed and open to traffic. This section of highway closely follows the shores of Sabaskong Bay on the Lake of the Woods, and Crow Lake, and its scenic attractions will prove of value on the completion of the highway.

Practically all of the construction work carried out on the main trunk, secondary and township roads during the year was under the statutory unemployment relief scheme. This work proved of value to the municipalities, and also in the unorganized territory, by not only relieving these areas of a considerable amount of their unemployment problem, but useful and necessary work, particularly drainage, and gravelling, was carried out on their roads.

During the winter of 1933-34, all of our mechanical grading units were given a thorough overhauling, and during the summer months the Fort Frances—Rainy River Trunk Road, and secondary trunk roads, were kept in excellent condition. This work was carried out under Northern Development funds, and also under this account, eleven bridges on the main trunk road were reconstructed to proper elevation and alignment, and several structures on the secondary and township roads repaired.

During the year twelve municipalities carried out work under agreement with the Department, and although the money expended was less than in previous years, very useful maintenance, and other work, was performed.

No. XI—Algoma-Manitoulin—D. A. Maciver, Blind River.

Algoma.

Direct Expenditure, Construction and Maintenance.

The Sudbury-Sault Ste. Marie Trunk Road and main feeder, totalling about 240 miles, were maintained during the spring and summer.

Two timber bridges were replaced, one new one constructed, and eight old ones refloored.

Nine agreements were entered into with municipalities.

Unemployment Relief.

Road camps operated at Desbarats on the Portlock-Pine Island diversion of the Sudbury-Sault Ste. Marie Road; at Cutler on the Cutler-Spanish diversion of the above trunk road; from January, 1934, between Webbwood and McKerrow, extending each side of the boundary between Algoma and Manitoulin with the greater proportion in the former. Their primary objective was the elimination of a level crossing at Webbwood. and an overhead, east of McKerrow, by a diversion. From May onwards a fourth camp operated at Aubrey Falls, on the Iron Bridge-Chapleau Road.

Settlers' camps operated at different points in the District, but the greater number were on the Sudbury-Sault Ste. Marie Road.

At Desbarats, Spanish and Webbwood, they were organized as a unit of a road camp. Others, working independently, were between Thessalon and Nestorville; the Wharncliffe Road; the Matinenda Road; and in Scarfe Township. They eased curves. improved grades, and generally speaking, brought existing roads to secondary trunk road standards.

Direct Relief.

Expenditure under this heading was chiefly in branch feeder roads. and was principally confined to the Matinenda Lake Road. On Shakespeare Road a new timber bridge replaced an existing bridge that had become unsafe.

Manitoulin.

Direct Expenditure, Construction and Maintenance.

As in Algoma. this item consisted principally of maintenance. The Sudbury-Sault Ste. Marie. Espanola-Little Current, and Little Current-Gore Bay. with their main arterial lines. practically absorbed the entire amount.

Eleven municipal agreements were in operation in Manitoulin.

Unemployment Relief.

Only the Webbwood-McKerrow road camp, mentioned in the Algoma report. was operated in this District, but settlers' camps were scattered in settlements along trunk roads on the north shore of the island.

Victoria-Haliburton—J. M. Gibson, Minden.

During the early fall eight road camps operated on the Coboconk-Minden-Dorset Road, along with a number of settlers' camps.

Location parties were on the Kinmount-Minden and Minden-Haliburton Roads. These passed to construction on the New Year, with an additional three road camps bringing the total to eleven. A number of settlers' camps were authorized at the same time; one group of three under an over-riding foreman was organized on parallel lines to a road camp.

Two compressors were used between three board camps operating in heavy rock.

Two power graders hauling a horse-drawn grader supplied casual maintenance in the Kirkfield-Coboconk and Minden-Hall's Lake Roads.

During the winter all main roads where work was being carried out were kept continuously open. and in addition periodic ploughing was given minor ones where settlers' camps were located.

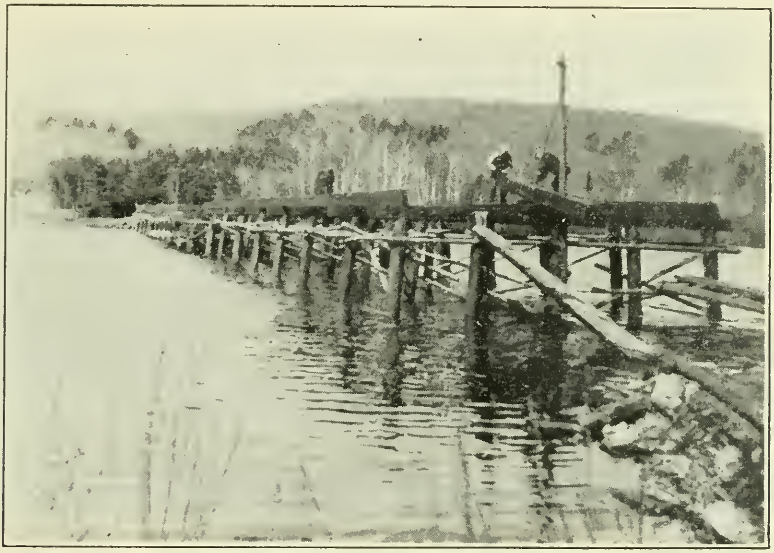
On all roads scenic features were protected where such could be done with reasonable economy.

As the year closes location parties are studying the suitability of the old Monck Road as a trunk road east, and as an outlet to unemployed for the approaching winter.

Peterborough-East and West Hastings—C. F. Szammers, Bancroft.

Peterborough.

The construction of the Burleigh Falls-Apsley Road was the major operation in this Electoral District. This road, approximately eighteen miles, traverses an almost continuous rock outcropping,—the southerly part limestone, and the northerly granite.



Algonquin Park Road — Oxtonge Bridge.

In the limestone region, a crusher was established in an adjacent quarry, which supplied surfacing for the road within economic reach. In the northern area suitable gravel deposits met all needs.

The Buckhorn Road, an artery that will eventually extend to join the Haliburton System. also received attention. Settlers from the adjacent area operated north from Buckhorn Village, and a crusher enabled the native limestone rock to be employed for surfacing.

Road camps operated in the region of heavy rock, and settlers, in the lighter work, were within reasonable distance of their homes.

West Hastings.

Complementary to the Burleigh Falls-Apsley Road, the main effort in this District was directed to the Apsley-Bancroft extension.

This work was carried on by settlers' camps; seven and a half miles were built and gravelled.

On the Bancroft-Whitney Road north of Maynooth, settlers' camps also operated in rebuilding the existing road and an important diversion, connecting to the steel bridge spanning Papineau Creek.

Settlers' camps carried out improvements also on secondary roads throughout the District.

East Hastings.

With the exception of the construction of six miles of grade on the Maynooth-Combermere Road, work in this area was concentrated in the removal of hazards, which had for long been responsible for accidents to traffic. Notable amongst these were.—Fort Stewart, a rock cut to improve a heavy grade; Hybla Hill, a diversion; Musclow Hill, realignment, and reduction of the grade from 20 per cent to less than 10 per cent.

Throughout the division, in return for the money expended, the condition of the people was materially improved, and a creditable record of useful and properly constructed work accomplished.

Addington-Frontenac—J. H. Curzon, Kaladar.

Following a survey of the Addington Road, north and south of Kaladar, authority was granted, and it passed to construction. Four road camps, and thirteen settlers' camps, practically completed the rehabilitation of twenty miles.

Similarly on the Sharbot Lake—Lavant Road, four settlers' camps were engaged on revamping the existing grade and alignment.

During the year, a number of other important location surveys were carried out to determine the future program of operations.

Renfrew Division—F. W. Beatty, Barry's Bay.

While its principal interests were concerned with works in the Electoral District of South Renfrew, its activities extended also to adjacent parts of North Renfrew, Nipissing and Lanark.

The trunk road operations were on the Whitney-Barry's Bay-Golden Lake—Lake Dore Road, a continuation of the Algonquin Park Road from Huntsville; the Griffith-Eganville-Golden Lake Road, connecting with the Denbigh—Kaladar Road; and the Combermere-Barry's Bay—Pembroke Road, a continuation of the Peterborough-Bancroft Road; and the Lanark Boundary-Calabogie Road, a part of the Renfrew-Perth Trunk Road.

In addition some thirty-six settlers' camps, for all or part of the year, were engaged on main township roads, which, with the development of the main arteries, will become important secondary feeders.

Rondeau Park—East Kent.

This is provincial park about 5,000 acres in extent, situated on the shore of Lake Erie, in Kent County. Of this area, about 3,000 acres is sandy marsh, and the balance timberland.

Much of the timber area had become practically impenetrable from wind falls and undergrowth, which, in addition to rendering it unusable, was retarding the growth of young trees.

Two camps were established in the area, with the objective on the one hand, of providing unemployment relief, and on the other, improving the facilities of the park.

A wharf 16 feet by 325 feet, and a bathing jetty, 50 feet in length, were constructed, both from timber cut in the park. Roads were paved and resurfaced, and trails and bridle paths cut out and made passable. A deer compound 110 acres in area was fenced, playing fields constructed, and shelters erected; all in addition to clearing, both in the woods, and along the lake shore.

Other works carried out are recorded in Appendix "C".

In the late summer, an unusually severe wind storm visited the park, leaving in its wake many acres of uprooted timber that will require to be salvaged during the next fiscal year.

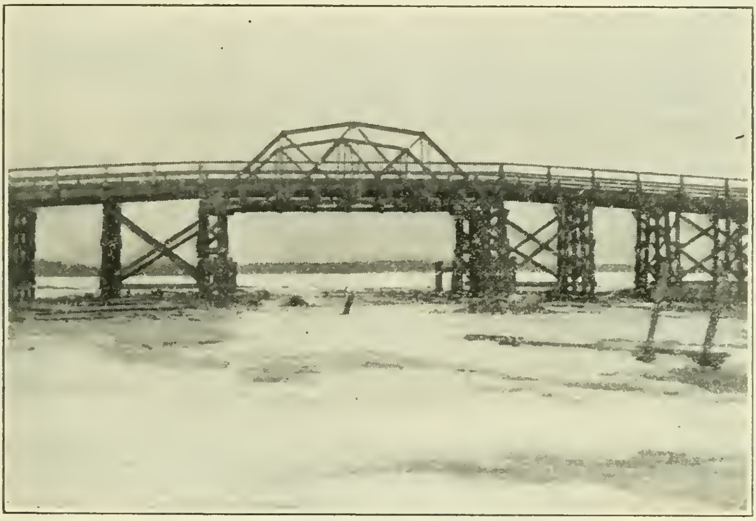
Turkey Point-Norfolk County.

The operations in this area were similar in scope to that of Rondeau Park, clearing out tangled undergrowth and wind falls, building, widening and improving park roads, and improving drainage.

The scheme also included reforestation, both for the protection of exposed ground, and the provision of future wooded park. In this connection, over 398,500 trees were planted, and some 325,000,000 lifted for replanting, in this, and other parts of the Province.

Gravel of a quality suitable for road purposes was available in the area, but required stripping a heavy overburden to the extent of about three yards to one of gravel. This overburden was, however, usually employed in adjacent depressions, thereby rendering its employment feasible.

Details of other work carried out are in Appendix "C".



Little Long Lac Bridge.

Section 11 (d)—Creameries.

The assistance in the development of dairying in Northern Ontario was continued by the Department by paying the salary, amounting to $300.00, of the buttermaker at Moonbeam Creamery.

Section 11 (f)—Seed Grain.

For the year 1934, seed wheat, oats, barley and peas were supplied to settlers in Northern Ontario and distributed as follows;—North and South Cochrane, 1,725 bags seed grain; Temiskaming, Nipissing, Sturgeon Falls and Sudbury, 758 bags; Algoma and Sault Ste. Marie, 88 bags; Thunder Bay, 34 bags; Kenora, 19 bags, and Fort Frances, 4 bags. Total expenditure, $7,238.31.

Section 11 (h)—Cattle Purchase.

Total shipments during the year 1934 amounted to three carloads or 41 head of cattle, shipped to Cochrane and points west. The total expenditure was $2,573.49.

C. H. Meader,
Acting Chief Engineer, Department of Northern
Development, Ontario.

SUMMARY OF EXPENDITURE OF ALL SERVICES UNDER THE ADMINISTRATION OF THE DEPARTMENT OF NORTHERN DEVELOPMENT FOR THE YEAR ENDED 31ST OCTOBER, 1934

Department of Northern Development			$3,296,043 10
Trans-Canada Highway, Unemployment Relief, Schedules 1A. 1B, 1C		6,375.503 51	
General Work, Unemployment Relief, Schedules 2A-2Z inclusive		13,752,676 39	
Bridges on the Trans-Canada Highway between Mattawa and Pembroke, Unemployment Relief		30.210 65	
Bridge at Petawawa River. Trans-Canada Highway. Unemployment Relief		12,207 19	
Gravelling, Trans-Canada Highway, North Bay to Point Alexander. Unemployment Relief		50,248 52	
Bridges on the Trans-Canada Highway between Mattawa and North Bay. Unemployment Relief		62,775 68	
Retread, Trans-Canada Highway. Tucker's Creek-Chalk River, Unemployment Relief		20.876 61	
Grading, Trans-Canada Highway, Deux Rivieres-Stonecliffe. Unemployment Relief		35.771 48	
		$20,340,270 03	
Total Federal repayments during fiscal year 1934	1,992,101 54		
Repayment of amount due the Province of Ontario from Federal Government to Oct. 31st. 1933	1,856,441 28		
Balance Expenditure Refund on current year		135,660 26	
			20,204.609 77
Special Warrant—Road between Larder Lake and Kirkland Lake			49.723 10
Special Warrant—Round Lake Bridge			9,792 08
Special Warrant—Relief Land Settlement Roads			17,071 40
			$23,577.239 45
Colonization Roads Branch			220,010 00
Colonization Roads Branch, Unemployment Relief			3,601 80
			$23.800.851 25

SUMMARY OF EXPENDITURE FOR THE TWENTY-THREE YEARS ENDED OCTOBER 31ST, 1934

THE NORTHERN DEVELOPMENT FUND

R.S.O. 1927, CHAP. 36, SEC. 11

Work Undertaken	Summary of Expenditure, 23rd May, 1912, to 31st Oct., 1933	Expenditure for Year ended 31st Oct., 1934	Total Expenditure to 31st Oct., 1934
Section 11 (a) Works and Improvements	$2.100 00	....	$2.100 00
Section 11 (b) Roads and Bridges	55.188.102 66	$3,218,116 71	58.406.219 37
Section 11 (d) Farms	206,110 04	....	206.110 04
Section 11 (d) Assistance of Settlers' Fire Relief	329.099 50	....	329.099 50
Section 11 (d) Assistance of Settlers' Saw Mills	14.945 90	....	14,945 90
Section 11 (d) Assistance of Settlers' Feed Shortage	131.799 50	....	131,799 50
Section 11 (d) Creameries and Grain Elevators	82.181 29	300 00	82,481 29
Section 11 (f) Seed Grain	409.324 13	7,238 31	416,562 44
Section 11 (f) Agricultural Implements	46.826 22	9 00	46,835 22
Section 11 (h) Purchase of Cattle	116.756 27	2.573 49	119,329 76
Section 11 (j) Schools and Other Public Buildings	52,999 29	....	52,999 29
Section 11 (k) Work not otherwise provided for	4,519 27	....	4.519 27
Returned Soldiers' and Sailors' Settlement Act. 1917	1.185.568 02	....	1,185,568 02
	$57.770.332 09	3.228.237 51	60.998.569 60
Settlers' Loan Account	2.008.614 61	67.805 59	2.076.420 20
	$59.778.946 70	3.296.043 10	63.074.989 80

THE NORTHERN DEVELOPMENT FUND

R.S.O. 1927. CHAP. 36 SEC. 8

SHORT STATEMENT

April 16th, 1912	—To amount voted for Expenditure in N. & N.W. Ontario	$5.000,000 00
March 26th, 1918	“ “ “ “ “	5,000,000 00
May 21st, 1921	“ “ “ “ “	5,000,000 00
May 8th, 1923	“ “ “ “ “	5,000,000 00
April 14th, 1925	“ “ “ “ “	5.000.000 00
April 8th, 1926	“ “ “ “ “	5.000,000 00
April 5th, 1927	“ “ “ “ “	5.000,000 00
March 28th, 1929	“ “ “ “ “	5.000,000 00
April 3rd, 1930	“ “ “ “ “	10.000.000 00
April 2nd, 1931	“ “ “ “ “	5.000.000 00
March 29th, 1932	“ “ “ “ “	5,000,000 00
April 18th, 1933	“ “ “ “ “	3.000.000 00
April 3rd, 1934	“ “ “ “ “	3,000,000 00
		$66,000.000 00
April 12th. 1912. to October 31st, 1934	—By Expenditure for 23 years as per detailed statement	63,074,989 80
	Balance available 1st November, 1934	$2,925.010 20

DEPARTMENT OF NORTHERN DEVELOPMENT

EXPENDITURE FOR THE YEAR ENDED 31ST OCTOBER, 1934, R.S.O. CHAP. 36

Administration, Section 9 ($123,694.49)

Salaries of Permanent Staff	$101.979 37		
Salaries of Temporary Staff	4.809 84		
		$106.789 21	
Travelling Expenses, Supplies and Contingencies		19.817 80	
			$126.607 01
Less Repayments transferred from Refund Account			17 95
			$126.589 06
Less Salary Assessment			2.894 57
			$123.694 49

Roads and Bridges, Section 11 (b) ($3,094,422.22)

District No. 1, Huntsville	$365.903 04
District No. 2, North Bay	321.757 64
District No. 3, Sudbury	169.117 30
District No. 4, Sault Ste. Marie	209.873 90
District No. 5, New Liskeard	573.047 94
District No. 6, Matheson	276,994 43
District No. 7, Cochrane	142.049 25
District No. 8, Fort William	650,843 52
District No. 9, Kenora	163.260 35
District No. 10, Fort Frances	85.552 10
District No. 11, Blind River	274.788 83
	$3.233.188 30
Less Repayments transferred from Refund Account	138.766 08
	$3.094.422 22

District No. 1 ($365,903.04)—Engineer, E. J. Hosking, Huntsville.

Bracebridge-Dorset Road	16.499 68
Burks Falls-Parry Sound Road	11.753 01
Emsdale-Sprucedale Road	1.703 65
Falkenburg-Rosseau-Parry Sound Road	16.005 53
Ferguson Highway	217.114 09
Gravenhurst-Bala-Parry Sound Road	12.893 80
Huntsville-Dorset Road	3.923 19
Parry Sound-Nobel Road	2.272 88
Powassan-Restoule Road	17,600 10

Roads and Bridges—Continued

District No. 1—Continued		
Sundridge-Magnetewan Road	4.395 59	
Trout Creek-Loring Road	23.097 52	
Equipment and Tools	11.395 48	
Settlers' and Other Roads, Sundry Expenditure	27.248 52	
		365,903 04
District No. 2 ($321,757,64)—Engineer, G. A. White, North Bay.		
Algonquin Park-Dwight Road	92.582 85	
Ferguson Highway	17.102 66	
North Bay-Callander Road	5.455 40	
North Bay-Sault Road	27,809 48	
North Bay-Temiskaming Road	3,003 42	
Pembroke-Callander Road	21,312 47	
Sturgeon Falls-Field Road	2,313 64	
Trans-Canada Highway	29,325 85	
Warren-Rutter Road	17.065 21	
Equipment and Tools	29.742 77	
Settlers' and Other Roads, Sundry Expenditure	76,043 89	
		321.757 64
District No. 3 ($169,117.30)—Engineer. A. M. Mills, Sudbury.		
Capreol-Chelmsford Road	4,998 80	
North Bay-Sault Road	51,258 66	
Sudbury-Levack Road	3.097 62	
Equipment and Tools	17,581 42	
Settlers' and Other Roads, Sundry Expenditure	92,180 80	
		169,117 30
District No. 4 ($209,873.90)—Engineer, R. A. McAllister, Sault Ste. Marie.		
Lochalsh-Goudreau Road	35,481 56	
Michipicoten Road	3.676 47	
Minto-Grace Mine Road	7,694 57	
North Bay-Sault Road	23,286 80	
Sault-Batchawana Rd	33,697 70	
Sault-Island Lake-Searchmont Road	10,211 76	
Second Line, Korah	4.279 38	
Equipment and Tools	32,920 29	
Settlers' and Other Roads, Sundry Expenditure	58,625 37	
		209,873 90
District No. 5 ($573,047.94)—Engineer, D. J. Miller, New Liskeard.		
Boston Creek Road	3,571 32	
Charlton West Road	8,951 35	
Cuniptau Mine Road	21,163 51	
Earlton-Hilliardton Road	1.465 80	
Elk Lake—Ashley Mine Road	21,698 94	
Elk Lake-Charlton Road	5,710 56	
Ferguson Highway	349.148 14	
Gowganda Road	4,600 77	
Greenwood's Bridge	3,664 06	
Haileybury West Road	3.385 15	
Hilliardton to Tomstown Road	3.260 29	
Milberta Road	1.953 95	
New Liskeard-Elk Lake Road	16.527 90	
New Liskeard-North Temiskaming Road	4,055 24	
South Lorrain Road	1,126 90	
Equipment and Tools	32.601 07	
Settlers' and Other Roads, Sundry Expenditure	90,162 99	
		573,047 94
District No. 6 ($276,994.43)—Engineer, E. A. Cash, Matheson.		
Ferguson Highway	45.285 13	
Frederickhouse Lake Dam	14.340 37	
Iroquois Falls-Nellie Lake Road	1,750 59	
Kirkland Lake—Cheminis Road	53,455 79	
Matheson-Shillington-Connaught Road	3,295 86	
Munroe Road	2,687 81	

Roads and Bridges—Continued

District No. 6—Continued

Porquis Junction-Iroquois Falls Road	2.629 89	
Porquis Junction-Timmins Road	39.763 50	
Sandy Falls Road	1,940 62	
Shillington-Monteith-Iroquois Falls Road	2,987 38	
South Porcupine-Matachewan Road	6.458 41	
Swastika-Matachewan Road	6.164 26	
Timmins-South Porcupine Road	3.840 30	
Triplex Road	2,479 01	
Equipment and Tools	32,197 02	
Settlers' and Other Roads, Sundry Expenditure	57,718 49	
		276,994 43

District No. 7 ($142,049.25)—Engineer, W. B. Hutcheson, Cochrane.

Cochrane-Hearst Road	41,303 58	
Cochrane-Norembega Road	3.630 71	
Ferguson Highway	1,850 41	
Hearst-Coppell Road	1.696 07	
Equipment and Tools	20.756 77	
Settlers' and Other Roads, Sundry Expenditure	72,811 71	
		142,049 25

District No. 8 ($650,843.52)—Engineer, E. Smith, Fort William.

Caribou Lake Road	7.011 16	
Gunturen Road	3.592 61	
Dawson Road	69.225 35	
Dog Lake Road	10.032 55	
Goldie-Finmark Road	2,684 27	
International Highway	235.264 36	
Jacques Road	3.408 69	
Kakabeka-Hymers Road	3.560 66	
Marks Road	1.315 21	
Nakina-Twin Lakes Road	3.846 26	
Oliver Road	10.749 58	
Onion Lake Road	3,123 22	
Sibley Road East	2,084 57	
Sibley Road West	5,520 07	
Silver Mountain Road	9.507 68	
South Hymers Road	1.500 28	
Trans-Canada Highway	15.059 19	
Equipment and Tools	29.210 14	
Settlers' and Other Roads, Sundry Expenditure	234.147 67	
		650,843 52

District No. 9 ($163.260.35)—Engineer, C. Tackaberry, Kenora.

East Melick Road	2.083 97	
Hudson-Sioux Lookout Road	2,519 98	
Kenora-Fort Frances Highway	8,353 33	
Kenora-Redditt Road	11,865 74	
Muriel Lake Road	1,933 44	
Pellatt Road	2.191 91	
Shallow Lake Road	1.501 75	
Trans-Canada Highway	29.492 32	
Equipment and Tools	38,474 69	
Settlers' and Other Roads, Sundry Expenditure	64.843 22	
		163.260 35

District No. 10 ($85,552.10)—Engineer, R. T. Lyons, Fort Frances.

Barwick-Black Hawk Road	2,162 78	
Fort Frances-Rainy River Road	9.353 69	
Indian Mission Road	2.571 25	
Kenora-Fort Frances Highway	1.689 40	
Equipment and Tools	6.769 99	
Settler's and Other Roads, Sundry Expenditure	63.004 99	
		85,552 10

Roads and Bridges—Continued

District No. 11 ($274.788.83)—Engineer, D. A. Maciver, Blind River.

Bidwell-Green Bay Road	2.099 00	
Dunn Valley Road	1.840 78	
Espanola-Little Current Road	9,745 24	
Gore Bay-Meldrum Bay Road	6.866 48	
Gore Bay—Providence Bay Road	4.547 16	
Iron Bridge-Parkinson Road	6.868 97	
Kensington Ferry	9.500 64	
Lake Matinenda Road	3,339 16	
Little Current-Gore Bay Road	6,460 54	
Little Current-Manitowaning Road	3.553 93	
Long Bay-Perivale-Spring Bay Road	1,186 46	
North Bay-Sault Road	60.131 24	
Pine Island Ferry	4.920 00	
Providence Bay-Manitowaning Road	4.933 33	
Sandfield-Mindemoya Road	3.319 66	
St. Joseph Island Roads	6.212 59	
Sylvan Valley Road	2.664 85	
Equipment and Tools	11.467 32	
Settlers' and Other Roads, Sundry Expenditure	125.131 43	
		274,788 83
		$3.233.188 30
Less Repayments transferred from Refund Account		138.766 08
Totals		$3.094.422 22

DEPARTMENT OF NORTHERN DEVELOPMENT

MISCELLANEOUS SERVICES

Section 11 (d) Moonbeam Creamery		
Wages of Buttermaker		$300 00
Section 11 (f) Purchase and Distribution of Seed Grain		
Purchase of Seed Grain	$ 6.414 44	
Services, Freight, Disbursements	823 87	7.238 31
Section 11 (f) Agricultural Implements		
Disbursements	$9 00	9 00
Section 11 (h) Purchase of Cattle and Other Live Stock for Settlers and Farmers		
Purchase of Cattle	$1,714 00	
Services, Freight, Disbursements	859 49	
		2.573 49
Settlers' Loan Account		
Salaries and Wages	$7.575 00	
Contingencies	1.360 59	
Loans to Settlers	58,870 00	
		67.805 59
Total		$77.926 39

STATUTORY

UNEMPLOYMENT RELIEF

Trans-Canada Highway—($6,375.503.51)

Ottawa Valley Section.	
From Pembroke through Mattawa to North Bay	$1.153,931 58
Thunder Bay Section.	
From Schreiber to Nipigon through Port Arthur and Fort William to English River	2.874.788 44
Western Section.	
From English River through Dyment, Dinorwic, Dryden, Kenora to Manitoba Boundary	2.270.267 64
General Expense Account	76,515 85
Totals	$6.375.503 51

STATUTORY

General Work—Unemployment Relief ($13,617,016.13)

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General Work ($9,524,892.00)

District No. 1, Huntsville	$1,407,318 29
District No. 2, North Bay	1,675,562 54
District No. 3, Sudbury	1,254,219 19
District No. 4, Sault Ste. Marie	604,577 91
District No. 5, New Liskeard	545,610 04
District No. 6, Matheson	541,182 90
District No. 7, Cochrane	669,396 75
District No. 8, Fort William	346,847 21
District No. 9, Kenora	862,919 51
District No. 10, Fort Frances	407,130 73
District No. 11, Blind River	1,120,988 94
General Expense Account	89,137 99
	$9,524,892 00

District No. 1 ($1,407,318.29)—Engineer, E. J. Hosking, Huntsville

Bracebridge-Baysville-Dorset Road	$71,958 83	
Burks Falls-Parry Sound Road	68,562 63	
Emsdale-Sprucedale Road	6,405 20	
Ferguson Highway	9,825 12	
Gravenhurst-Bala-Parry Sound Road	62,357 70	
Huntsville-Dwight-Dorset Road	218,659 36	
Parry Sound-Point Au Baril Road	101,209 01	
Powassan-Chisholm Road	13,262 29	
Powassan-Restoule Road	46,954 35	
Rosseau Road	228,648 09	
Sundridge-Magnetewan Road	67,488 23	
Trout Creek—Loring Road	31,423 40	
Windermere Road	100,446 53	
Settlers' and Other Roads, Sundry Expenditure	380,117 55	
		1,407,318 29

District No. 2 ($1,675,562.54)—Engineer, G. A. White, North Bay

Algonquin Park-Dwight Road	$561,647 15	
Bonfield Spur	33,877 37	
Ferguson Highway	39,173 80	
Field-Martin River Road	33,958 68	
Field-River Valley Road	24,784 00	
Hagar-St. Charles Road	18,926 15	
Moor Lake—Desjoachins Road	2,911 65	
Noelville-Monetville Road	4,422 71	
North Bay-Sault Road	94,085 75	
Sturgeon Falls-Crystal Falls Rd.	14,681 07	
Sturgeon Falls-Field Road	50,481 34	
Verner-Field Road	27,721 81	
Verner-Lavigne Road	7,312 02	
Warren-River Valley Road	22,031 54	
Warren-Rutter Road	69,140 30	
Settlers' and Other Roads, Sundry Expenditure	670,407 20	
		1,675,562 54

District No. 3 ($1,254,219.19)—Engineer, A. M. Mills, Sudbury

Coppercliff-Creighton Road	$79,054 76	
Chapleau-Devon Road	127,905 50	
Chelmsford-Levack-Capreol Road	16,395 05	
North Bay-Sault Road	226,807 62	
Sudbury-Burwash Road	45,999 17	
Sudbury-Carson-Massey Bay Road	36,507 34	
Sudbury-Levack-Cartier Road	161,602 04	
Sudbury-Milnet Road	33,868 26	
Westree-Shining Tree-Gowganda Road	41,974 12	
Settlers' and Other Roads, Sundry Expenditure	484,105 33	
		1,254,219 19

General Work—Unemployment Relief—Continued

District No. 4 ($604,577.91)—Engineer, R. A. McAllister, Sault Ste. Marie

Frater-Agawa Bay Road	$5,915 66	
Hawk Junction Branch Road	14.814 90	
Hornepayne Road	38.802 88	
Michipicoten Road	21,320 04	
North Bay-Sault Road	15.570 82	
Sault-Batchawana Road and Extension	314,788 97	
Sault-Island Lake-Searchmont Road	58.148 06	
Second Line. Korah	8.041 44	
Survey. alternative route of Trans-Canada Highway	10.452 40	
White River West Road	39.225 73	
Settlers' and Other Roads, Sundry Expenditure	77.497 01	
		604,577 91

District No. 5 ($545,610.04)—Engineer, D. J. Miller, New Liskeard

Brentha Road	$3.441 40	
Casey-Brethour Road	10.097 89	
Charlton Road	6.830 12	
Charlton West Road	4,114 40	
Charlton-Hilliardton Road	7,354 90	
Elk Lake-Ashley Mine Road	10,801 25	
Elk Lake-Charlton Road	2,762 75	
Ferguson Highway	168.292 05	
Gowganda-Shining Tree Road	5,089 51	
Greenwood's Bridge Road	7.186 16	
Haileybury West Road	11,690 80	
McIntyre Road	5.988 62	
Milberta Road	4.449 85	
New Liskeard-Elk Lake Road	33.589 79	
New Liskeard-North Temiskaming Road	28.239 21	
South Lorrain Road	9.104 63	
Uno Park Road	3,771 79	
Settlers' and Other Roads, Sundry Expenditure	222,804 92	
		545,610 04

District No. 6 ($541.182.90)—Engineer, E. A. Cash, Matheson

Ferguson Highway	$57,556 15	
Goldthorpe-Kirkland Lake Road	5.981 48	
Kirkland Lake-Cheminis Road	20,496 75	
Kirkland Lake-Quebec Bdy. Road	1,729 33	
Matheson-Shillington-Connaught Road	19,507 99	
Munroe Road	6,082 44	
Porquis Jct.-Iroquois Falls Road	4,106 60	
Porquis Jct.-Timmins Road	27,855 28	
Shillington-Monteith-Iroquois Falls Road	2.464 96	
South Porcupine-Timmins Road	15,942 90	
Settlers' and Other Roads, Sundry Expenditure	379,459 02	
		541,182 90

District No. 7 ($669,396.75)—Engineer, W. B. Hutcheson, Cochrane

Cochrane-Hearst Road	$105.766 34	
Cochrane-Norembega Road	21.467 38	
Clute Road	3.233 28	
Ferguson Highway	6.864 54	
Gardner Road	14,779 17	
Genier Road	7,050 38	
Hearst-Coppell-Hornepayne Road	48.169 44	
Settlers' and Other Roads, Sundry Expenditure	462.066 22	
		669,396 75

District No. 8 ($346,847.21)—Engineer, E. Smith, Fort William

Dawson Road	$146.088 02	
Dawson Road-Kaministiquia Road	11.287 32	
International Highway	189.249 87	
Settlers' and Other Roads. Sundry Expenditure	222 00	
		346.847 21

General Work—Unemployment Relief—Continued

District No. 9 ($862,919.51)—Engineer, C. Tackaberry, Kenora

East Melick Road	$3.732 95	
Eton-Rugby Road	8.382 93	
Hudson-Sioux Lookout Road	35,704 30	
Kenora-Fort Frances Highway	372.603 90	
Kenora-Redditt Road	7,309 46	
Lac Lu Loop Road	5,303 13	
Sioux Lookout-Dinorwic Road	240,188 05	
Settlers' and Other Roads, Sundry Expenditure	189,694 79	
		862,919 51

District No. 10 ($407.130.73) Engineer, R. T. Lyons, Fort Frances

Arbor-Vitae Road	$11.505 83	
Atikokan Road	5,421 82	
Barnhart Road	6.533 40	
Barwick-Finland Road	2.770 95	
Bergland-Tovell Road	5.697 43	
Crozier Road	16.491 50	
Deerlock Road	5.713 87	
Devlin Road	10.099 11	
Fort Frances-Rainy River Road	95.203 62	
Frog Creek Road	6.612 33	
Indian Mission Road	21.486 37	
Kenora-Fort Frances Highway	17.776 44	
La Vallee Road	6.855 94	
Off Lake-Clearwater Road	2.437 45	
Sleeman-Bergland Road	4.133 45	
Spohn Road	26.211 82	
Spohn River Road	4.347 62	
Stratton-Sifton Road	21.833 39	
Settlers' and Other Roads, Sundry Expenditure	135.998 39	
		407,130 73

District No. 11 ($1,120,988.94) Engineer, D. A. Maciver, Blind River

Blind River-Duborn Road	$11,668 03	
Blind River-Iron Bridge Road	4.017 14	
Dunn Valley Road	8.389 59	
Espanola-Little Current Road	34.834 03	
Gore Bay-Meldrum Bay Road	6.653 15	
Gore Bay-Providence Bay Road	9.831 73	
Iron Bridge-Parkinson Road	40.377 19	
Little Current-Gore Bay Road	15.828 57	
Little Current-Manitowaning Road	5,901 30	
Matinenda Lake Road	34,152 32	
North Bay-Sault Road	505.221 07	
Providence Bay-Manitowaning Road	3,182 90	
Sandfield-Mindemoya Road	5,009 95	
St. Joseph Island Roads	5.743 63	
Sylvan Valley Road	21,374 14	
Wharncliffe Road	48.657 13	
Settlers' and Other Roads, Sundry Expenditure	360,147 07	
		1,120.988 94
General Expense Account		89,137 99
		$9.524.892 00

COLONIZATION ROADS AREA ($4,227,784.39)

Addington-Frontenac Counties ($464,763.72)

Addington Road	$421.248 98	
Levant Station-Sharbot Lake Road	23.886 27	
Other Roads, Sundry Expenditure	19,628 47	
		464,763 72

East Simcoe County ($16,268.44)

Port Severn-Severn Falls Road	$10.854 46	
Other Roads, Sundry Expenditure	5.413 98	
		16,268 44

Colonization Roads Area—Continued

Ontario County		23.897 60
Muskoka County ($19,727.01)		
Port Severn-Honey Harbour Road	$19.097 06	
Other Roads, Sundry Expenditure	629 95	
		19,727 01
Renfrew County ($1,038,512.38)		
Calabogie-Lanark Bdy	$35.793 61	
Dacre-Shamrock Road	10.562 85	
Eganville-Cormac Road	46,478 77	
Golden Lake-Eganville Road	48,888 92	
Golden Lake-Eganville-Dacre-Griffith Road	214.869 77	
Killaloe-Brudenell Road	19.283 21	
Killaloe-Golden Lake-Lake D'Or Road	81.052 37	
Madawaska-Barry's Bay-Killaloe Road	127.471 24	
Maynooth-Combermere-Barry's Bay-Pembroke Road	156.693 91	
Pembroke-Barry's Bay Road	101.209 83	
Other Roads, Sundry Expenditure	196.207 90	
		1,038,512 38
Nipissing County ($111,072.54)		
Madawaska-Maynooth Road	$14.198 33	
Madawaska-Whitney-Sproule Bay Road	56.774 91	
Whitney-Maynooth Road	39,844 88	
Other Roads, Sundry Expenditure	254 42	
		111.072 54
Lanark County		26,102 83
Haliburton County ($1.119,362.21)		
Coboconk-Minden-Dorset Road	$604,195 51	
Gooderham-Haliburton Road	19.236 50	
Haliburton-Minden Road	168.474 62	
Kinmount-Gooderham Road	89.229 88	
Minden-Kinmount Road	71,572 17	
Other Roads. Sundry Expenditure	166.653 53	
		1,119,362 21
Victoria County ($304,234.82)		
Bobcaygeon-Kinmount Road	$56.187 68	
Burnt River Road	11.448 95	
Kirkfield-Coboconk Road	147,355 57	
Rosedale-Coboconk Road	28.405 71	
Ophill-Sebright Road	14.661 62	
Victoria Road	16.956 12	
Other Roads, Sundry Expenditure	29.219 17	
		304,234 82
Peterborough-Hastings Road ($922,182.07)		
Buckhorn Road	$41.253 74	
Burleigh-Apsley-Bancroft Road	589,173 35	
Coe Hill Road	13,724 10	
Crowe Lake Road	17,194 55	
New Carlow Road	24.883 55	
Petersen Road	46,067 54	
St. Ola Siding-Murphy's Corners	22,113 11	
Stoney Settlement Road	16.883 72	
Turriff Road	23,685 62	
Other Roads, Sundry Expenditure	127.202 79	
		922,182 07
Turkey Point Road		66.381 76
Rondeau Provincial Park Road		115.279 01
Total Colonization Roads Area		$4.227.784 39

Total General Work	$13.752.676 39
Less Repayments transferred from Refund Account	135.660 26
Total General Work	$13.617.016 13

UNEMPLOYMENT RELIEF, 1934

Bridges on the Trans-Canada Highway between Mattawa and Pembroke	$30,210 65
Bridge at Petewawa River, Trans-Canada Highway	$12,207 19
Gravelling, Trans-Canada Highway, North Bay to Point Alexander	$50.248 52
Bridges on the Trans-Canada Highway between Mattawa and North Bay	$62,775 68
Retread, Trans-Canada Highway, Tucker's Creek to Chalk River	$20.876 61
Grading, Trans-Canada Highway, Deux Rivieres—Stonecliffe	$35,771 48

SPECIAL WARRANTS

Road between Larder Lake and Kirkland Lake	$49,723 10
Round Lake Bridge	$9,792 08

RELIEF LAND SETTLEMENT ROADS

District No. 5 New Liskeard	$4,357 00	
District No. 6, Matheson	7,932 90	
District No. 7, Cochrane	4,781 50	$17,071 40

COLONIZATION ROADS BRANCH

Salaries and Contingencies—Salaries	$9,287 50	
Contingencies	1,365 49	
		$10.652 99
By-Laws		136.799 27
Construction and Maintenance		63.763 59
Inspections		8.414 10
Storage and Insurance		268 88
Engineering and Surveying		111 17
Total		$220,010 00
Unemployment Relief		3.601 80
Total		$223.611 80

DEPARTMENT OF NORTHERN DEVELOPMENT

STATEMENT OF REVENUE FOR YEAR ENDED 31ST OCTOBER, 1934

	Capital	Ordinary	Totals
Administration, Section 9	....	$17 95	$17 95
Note: Transferred as Expenditure Refund on Administration Expenditure.			
Section 11 (b)—Roads.			
Sale of Equipment, Materials, Supplies, Rentals, Refunds, etc	$134,331 85	4,434 23	138.766 08
Note: Transferred as Expenditure Refund on Roads and Bridges Expenditure.			
Section 11 (f)—Seed Grain.			
Repayment of Principal	3,966 14	....	....
Interest	....	1,235 46	5.201 60
Section 11 (f)—Agricultural Implements.			
Repayment of Principal	82 66	....	....
Interest	....	51 66	134 32

Section 11 (h)—Cattle Purchase.			
Repayment of Principal	3,175 48	....	....
Interest	....	437 55	3,613 03
Section 11 (d)—Assistance to Settlers, Feed Shortage.			
Repayment of Principal	348 53	....	....
Interest	....	23 35	371 88
General Account.			
Bank Interest	....	5,090 20	5.090 20
Settlers' Loan Account.			
Repayment of Principal	34.942 58	....	....
Interest	....	22.773 81	57,716 39
Special Fund.			
Cochrane Creamery	456 94	....	456 94
	177,304 18	34.064 21	211.368 39
Colonization Roads Branch	228 15	152 09	380 24
	$177.532 33	34,216 30	211,748 63
Unemployment Relief.			
Note: Transferred as Expenditure Refund on Unemployment Relief Account	$1.992,101 54	....	$1.992,101 54

DEPARTMENT OF NORTHERN DEVELOPMENT

ASSETS—OCTOBER 31ST, 1934

Notes Outstanding.	Principal	Accrued Interest	Total
Section 11 (d)—Feed Shortage	$57.729 61	$36.546 92	$94.276 53
Section 11 (f)—Seed Grain	101.623 21	54.178 10	155.801 31
Section 11 (f)—Agricultural Implements	16.688 04	10.287 94	26.975 98
Section 11 (h)—Cattle Purchase	15,892 62	2.886 59	18.779 21
	$191,933 48	$103.899 55	$295.833 03
Settlers' Loan Account.			
Loans Outstanding	762.524 36	116,256 42	878.780 78
Total	$954.457 84	$220.155 97	$1.174,613 81

CONTINGENT ASSETS

Roads, Land, Buildings, Plant, Equipment, Motors, Tractors, etc.	$316.338 87

W. LL. LAWER,
Accountant.

Toronto, October 31st, 1934.

OFFICE OF SETTLERS' LOAN COMMISSIONER

Toronto, October 31st, 1934.

HONOURABLE PETER HEENAN,
Minister in charge of the
Department of Northern Development,
Buildings.

HONOURABLE SIR,—

Herewith attached you will please find statement of the operations of this branch for the fiscal year ending October 31st, 1934.

Payments from settlers are perceptibly better for this year, due, undoubtedly, to better returns being received from their products.

Yours very truly,

C. H. FULLERTON,
Settlers' Loan Commissioner.

STATEMENT OF LOANS ISSUED

Total Number of Applications Received

TO OCTOBER 31ST, 1934

To October 31st, 1933		9,788	
Year ending October 31st, 1934		410	
			10.198

LOANS

Loans Issued:			
To October 31st. 1933		5.475	
Year ending October 31st, 1934 (new)		214	
			5.689
Amount granted			$1.891.415 00
Average Loan per settler			332 47
Amount applied for			3.961.096 00
Number of Loans issued	5,689		
Number of Loans outstanding	3.127		
Number of Loans paid in full		2,562	

STATEMENT OF LOANS TO CREAMERIES AND OTHER LIKE ASSOCIATIONS

INCLUDED IN THE ABOVE STATEMENT
TO OCTOBER 31ST, 1934

Applications and Loans

	Amount Granted	Amount Owing
The Sudbury Dairy, Ltd	$24.000 00	Paid
The Kenora Dairy Co-Operative Association, Ltd	13.000 00	$1.000 00
Producers Co-Operative Creamery Co., Ltd., Lavallee, Ont	3.500 00	1.200 00
The Matheson Co-Operative Dairy Co., Ltd	7.530 00	160 00
The Cochrane Co-Operative Dairy Co., Ltd	7.830 00	nil
Northern Co-Operative Co., Ltd., Rydal Bank, Ont	5.000 00	3.000 00
The Thunder Bay Co-Operative Dairy, Ltd	18.600 00	14.350 00
Fort Frances Creamery Co., Ltd., Fort Frances, Ont	5.000 00	4.750 00
Totals	$84,460 00	$24.460 00
Included in Bad Debts		22.647 11
		$47.107 11

PAYMENTS ON ACCOUNT OF INTEREST

	Accrued Interest Due	Interest Received	Per Cent
Loans to Settlers	$546,310 33	$432,027 55	....
Loans to Creameries	22,367 79	20,394 15	....
Total	$568,678 12	$452,421 70	79.5

On Account of Principal

	Payments on Principal Due	Principal Received	Per Cent
Loans to Settlers	$1,383,907 84	$1,060,669 85	....
Loans to Creameries	63,660 00	37,352 89	....
Total	$1,447,567 84	$1,098,022 74	75.8

Total

	Payments Due	Payments Received	Per Cent
Loans to Settlers	$1,930,218 17	$1,492,697 40	....
Loans to Creameries	86,027 79	57,747 04	....
Total	$2,016,245 96	$1,550,444 44	76.8

Charges	$568,678 12	$1,891,415 00
Payments	452,421 70	1,098,022 74
Outstanding	$116,256 42	$793,392 26
Settlers	$115,338 35	$746,285 15
Creameries	918 07	47,107 11

STATEMENT OF LOANS ISSUED AND OUTSTANDING

District	Issued		Outstanding		
	No. of Loans	Issued	No. of Loans	Unpaid Principal	Unpaid Interest
Algoma	430	$144,480 00	330	$96,183 72	$10,980 54
Manitoulin	15	6,000 00	5	614 90	52 91
Nipissing	332	114,020 00	211	53,999 39	7,806 94
Sudbury	463	192,405 00	307	88,854 07	8,528 34
Kenora	506	170,840 00	245	49,741 72	8,021 16
Rainy River	427	142,175 00	238	57,599 44	7,681 55
Temiskaming	2,344	731,545 00	1,153	253,768 46	43,322 14
Thunder Bay	1,172	389,950 00	638	161,762 66	29,862 84
Totals	5,689	$1,891,415 00	3,127	$762,524 36	$116,256 42

Reserve for bad and doubtful debts	30,867 90
	$793,392 26

		Settlers	Dairies
To 1933	$1,832,545 00		
To 1934	58,870 00	$58,710 00	$160 00

STATEMENT OF RECEIPTS, NOVEMBER 1st, 1933, TO OCTOBER 31st, 1934

RECEIPTS—ORDINARY

Date	Interest on Loans	Principal	Misc. Revenue	Exchange
November, 1933	$2,609 13	$2,322 84	....	$0 02
December, 1933	1,568 76	2,090 21	....	15
January, 1934	1,638 69	2,490 65	....	....
February, 1934	1,671 15	2,574 20	....	....
March, 1934	1,220 70	1,789 01	....	....
April, 1934	1,530 12	3,518 51	....	....
May, 1934	2,221 36	3,345 50	....	....
June, 1934	1,074 20	2,253 61	....	15
July, 1934	2,630 31	5,249 43	....	03
August, 1934	3,260 98	3,980 44	....	01
September, 1934	1,518 02	1,725 44	456 94	18
October, 1934	1,829 85	3,602 74	....	....
Totals	$22,773 27	$34,942 58	$456 94	$0 54

SETTLERS' LOAN COMMISSIONER

Statement of Expenditure—Year Ending October 31st, 1934

Salaries		
F. Dane, Commissioner	$2,750 00	
C. H. Fullerton, Commissioner	375 00	
A. E. MacLean, Senior Clerk	2,500 00	
F. M. Jack, Clerk Stenographer	1,200 00	
M. L. Potts, Stenographer	750 00	
		$7,575 00
Office Expense		
Stationery, etc.	$497 39	
Telegrams	1 38	
Legal Expense	8 95	
Cost of Certificate of Search	18 66	
		526 38
Outside Expense		
Arthurs, E.	$6 00	
Barr, J. C.	4 10	
Bastien, J. A.	123 60	
Boice, E. A.	5 50	
Crebo, Wm.	33 50	
Colley, J. W.	29 50	
Grigg, A.	59 60	
Hough, W.	61 07	
Lowe, J. S.	9 00	
Millichamp, T. A.	45 80	
Marchildon, J. P.	114 98	
McDougall, J. T.	3 50	
Smith, D.	62 90	
Torrie, L.	162 07	
Trainor, W. J.	15 00	
Van Horn, L. E.	46 26	
Wigle, R. G.	47 00	
Widdifield, F.	4 83	
		834 21
		$8,935 59

SUMMARY OF EXPENSES TO OCTOBER 31st, 1934

	To October 31st, 1933	Year Ending October 31st, 1934	Total
Salaries	$150,637 28	$7,575 00	$158,212 28
Travelling expenses	1,259 85	....	1,259 85
Office expenses	15,494 55	526 38	16,020 93
Outside expenses	8,624 01	834 21	9,458 22
	$176,015 69	$8,935 59	$184,951 28
Refund of overpayments	53 92	....	53 92
Totals	$176,069 61	$8,935 59	$185,005 20

COLONIZATION ROADS BRANCH

REPORT OF THE ENGINEER

Expenditures approved under authority of the Colonization Roads Act were made in the following fourteen Electoral Districts:

- Addington
- Carleton
- Hastings East
- Hastings West
- Leeds
- Muskoka
- Nipissing
- Parry Sound
- Peterborough
- Renfrew North
- Renfrew South
- Simcoe Centre
- Simcoe East
- Victoria-Haliburton

Responsibility for the layout and execution of work in the Municipalities was primarily through the Division Engineers, when operations were within their territory. Under their direction nine Colonization Roads Inspectors rendered immediate supervision. Liaison, in areas, apart from District Offices, was maintained through periodic inspections by engineers operating directly from the Department.

As in the previous year, financial conditions throughout the Province were reflected in further curtailment of Colonization Road expenditure.

Direct Grants

Under this head expenditures were made in seventy-three organized municipalities and twenty-one unorganized or statute labour townships. Employment was given to 2,028 men, 763 teams and 26 trucks, who contributed the following record of work for the betterment of their municipalities:

Cutting and burning, 118.1 miles; side brushing, 393.6 miles; stumping and grubbing, 123.8 miles; crosslaying, .12 miles; grading new roads, 145.5 miles; regrading existing roads, 48.8 miles; ditching, 3,000 cubic yards; gravelling new roads, 79.7 miles with 14,624 cubic yards; patching old roads with 13,814 cubic yards; clay surfacing, 17.3 miles of road with 3,550 cubic yards; rock crushed, 206 cubic yards; crushed rock hauled, 719 cubic yards; crushed rock applied to road, 112.7 miles; maintenance dragging, 1,880 miles; culverts built, 85 wood, 8 stone and 1 metal; bridges built, 19; rock excavation, 8,251 cubic yards; other materials, 9,483.5 cubic yards.

By-law Work

Many municipalities were desirous of availing themselves of the privilege of the dollar for dollar plan, but in some instances the state of their finances was a barrier, and in others, adjacent to Unemployment Relief works, the passing of by-laws was postponed.

During the year, however, a total of ninety-nine municipalities executed by-laws for the following purposes:—For municipal roads, ninety-eight; to subsidize the purchase of equipment, sixty-two; and thirty-three appointed road overseers, thereby receiving reimbursement of fifty per cent of his salary to a maximum of $400.00.

The work carried out gave employment to 9,562 men, 83 trucks and 4,605 teams, and below is a summary of work accomplished.

Cutting and burning new road, 27.71 miles; side brushing existing roads, 278.81 miles; stumping and grubbing, 3.53 miles; grading new road, 33.67 miles; regrading existing roads, 1,157.06 miles; ditching, 22,153 cubic yards; gravelling new roads, 16.99 miles; regravelling existing roads, 686.67 miles; clay surfacing, 21.06 miles; rock crushed, 12,494 cubic yards, and road dressed with crushed rock, 12 miles; dragging totalled 14,169 miles; guard rail erected, 6,568 feet; bridges erected, 53; wood culverts, 797, stone, 139, metal, 105; rock excavation, 6,713 cubic yards, and excavation, other materials, 30,734 cubic yards; calcium chloride used, 35 tons.

Roy G. Sneath,
Engineer, Colonization Roads.

Toronto, October 31st, 1934.

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APPENDIX A

DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934

Direct Expenditure

Electoral District	Cutting and Burning New Road Miles	Side Brush Existing Road Miles	Stump and Grub Miles	Grading		Ditching Cu. Yds.	Gravelling				Clay Surfacing		Crushed Rock			Dragging Miles	Culverts				Bridges											Excavation	
				New	Repair		New		Repairs												New			Replaced			Repaired			Painted		Earth	Rock
				Miles	Miles		Length Miles	Cu. Yds.	Length Miles	Cu. Yds.	Length Miles	Cu. Yds.	Crushed Cu. Yds.	Hauled Cu. Yds.	Road Covered Miles		Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Cubic Yards	Cubic Yards
Algoma	3.68	56.51	13.23	20.02	376.65	20,095	14.50	4,353	330.10	46,014	34.10	11,553	......	609	......	26,920	83	10	4	15	2	....	....	2	....	....	9	1	....	....	....	2,148	8,313
Cochrane North	2.42	3.51	18.44	3.43	0.05	11,840	9.72	6,952	24.60	7,021	11.03	9,137	......	......	......	48,327	27	....	....	26	1	....	....	1	....	....	36	....	....	....	....	3,118	61
Cochrane South	2.00	61.60	2.25	2.62	118.45	25,983	2.00	1,406	......	59,916	......	1,575	......	15,408	......	65,758	70	....	....	16	6	....	....	....	....	....	15	....	....	....	....	2,726	322
Fort William	29.79	107.32	26.25	20.90	54.60	44,574	21.69	23,184	77.25	26,923	7.06	27,584	1,200	616	......	10,255	358	2	5	42	9	....	....	3	....	....	22	....	....	3	....	6,994	76,818
Kenora	6.12	77.83	3.21	5.98	159.42	7,664	20.62	13,008	142.29	27,535	6.80	9,868	......	107	......	16,707	125	....	....	7	....	....	....	....	....	....	14	....	....	....	....	12,184	10,079
Manitoulin	1.06	134.50	27.90	3.70	138.00	18,927	2.60	408	182.00	42,343	69.00	9,220	36	905	......	19,553	60	13	....	31	....	....	....	1	....	....	1	....	....	....	....	1,242	4,148
Muskoka	20.75	......	......	......	......	87	......	......	89.51	23,946	1.50	548	......	41	......	6,964	6	3	....	6	....	....	....	....	....	....	....	....	....	....	....	8,564	118
Nipissing	......	31.00	......	......	2.46	4,612	0.25	165	19.00	15,345	3.00	3,027	......	......	......	4,365	3	1	....	7	....	....	....	....	....	....	5	....	....	....	....	482	2,546
Parry Sound	......	77.00	......	......	......	2,682	......	......	242.00	66,470	26.67	7,196	......	6,409	8.00	24,509	21	....	....	2	2	....	....	3	....	....	5	....	....	....	....	5,965	1,068
Port Arthur	26.72	213.81	17.04	19.14	117.41	57,338	26.83	20,796	153.36	33,104	4.45	23,784	280	......	2.00	4,958	310	11	7	45	4	....	....	4	....	....	12	....	....	1	....	74,135	17,872
Rainy River	0.10	0.25	......	0.20	......	700	0.80	1,382	8.00	3,343	0.55	798	......	......	......	9,089	....	....	....	....	3	....	....	12	....	....	9	....	....	....	....	......	179
Renfrew North	......	14.58	0.02	......	......	600	9.00	1,466	13.50	327	4.50	24	......	......	......	......	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2,427	40
Sault Ste. Marie	0.70	109.60	0.40	3.30	31.80	3,125	2.80	3,932	122.50	30,080	47.50	5,238	......	234	0.30	20,175	2	....	1	1	1	....	....	....	....	....	7	....	....	....	....	3,837	......
Sturgeon Falls	......	5.75	......	......	16.92	3,754	9.25	4,765	36.80	13,317	2.20	1,746	......	......	......	10,365	16	....	....	3	....	....	....	1	....	....	8	....	....	2	....	888	2,254
Sudbury	9.24	38.65	11.35	6.99	72.30	136,422	3.68	1,128	26.00	9,864	6.50	7,289	......	6,222	11.00	2,237	89	2	8	33	4	....	....	....	2	....	....	....	....	....	....	825	6,954
Temiskaming	8.82	78.66	7.62	3.95	3.00	25,131	13.89	14,502	189.57	81,076	17.97	8,779	......	855	1.51	25,350	47	....	....	31	3	1	....	7	....	....	28	1	....	....	....	18,102	316
Totals	111.40	1010.57	127.71	90.23	1,091.06	363,534	137.63	97,447	1656.48	486,624	242.83	127,366	1,516	31,406	22.81	295,532	1217	42	25	265	35	1	....	34	2	....	171	2	....	6	....	143,637	131,088

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APPENDIX B

DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934

Northern Development Agreements

Electoral District	Cutting and Burning New Road Miles	Side Brushing Existing Road Miles	Stump and Grub Miles	Grading		Ditching	Gravelling				Clay Surfacing		Crushed Rock			Drag-ging, Miles	Culverts				Bridges											Excavation	
							New		Repairs												New			Replaced			Repaired			Painted			
				New Miles	Repair Miles	Cu. Yds.	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Crushed Cubic Yards	Hauled Cubic Yards	Road Covered Miles		Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Earth Cubic Yards	Rock Cubic Yards
Algoma	....	310.00	0.30	2.75	51.60	1,127	16.90	894	138.90	7,892	0.75	150	....	100	0.25	125	52	1	22	2	....	....	....	1	....	2	3	....	....	....	....	161	30
Cochrane North	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cochrane South	....	3.20	....	....	53.80	155	....	....	....	3,926	....	....	....	4,664	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	190
Fort William	6.90	74.27	12.71	7.69	55.39	9,553	11.06	8,454	....	10,699	....	6,414	....	32	....	3,219	198	20	....	5	3	....	....	2	....	....	13	....	....	....	....	223	28,640
Kenora	2.75	14.52	5.41	0.68	31.75	3,753	....	478	....	2,558	....	1,184	10	....	....	52	45	4	....	3	1	....	....	....	....	....	....	....	....	....	....	485	112
Manitoulin	....	57.00	0.30	1.50	17.50	1,879	16.60	2,288	114.70	9,241	5.70	1,125	....	123	....	700	25	17	2	4	1	....	....	1	....	....	6	1	....	....	....	552	495
Nipissing	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Port Arthur	0.17	69.29	0.04	....	....	963	....	....	....	2,320	....	....	....	....	....	1,359	29	....	....	....	....	....	....	....	....	....	2	....	....	....	....	286	30
Rainy River	1.84	94.24	1.74	0.34	9.26	10,990	12.70	3,137	64.28	11,850	0.24	172	....	17	....	2,760	84	....	31	1	3	....	....	1	....	....	16	....	....	....	....	....	3
Sault Ste. Marie	1.30	8.30	3.00	0.60	29.50	3,850	6.90	2,544	19.50	3,377	2.40	223	4	14	....	153	32	1	17	2	2	....	1	1	....	....	2	1	....	....	....	202	....
Sturgeon Falls	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sudbury	0.75	37.25	....	1.50	52.25	3,935	1.10	1,270	40.50	7,514	5.20	1,072	....	690	0.35	1,080	58	2	....	4	4	....	....	....	....	....	15	....	....	....	....	....	6
Temiskaming	1.75	28.88	1.00	4.70	100.03	20,664	4.24	1,238	106.00	14,835	3.88	2,657	....	60	0.13	331	33	....	1	36	....	....	....	....	....	....	9	1	....	....	....	6,727	5
Totals	15.46	696.95	24.50	19.76	401.28	56,869	69.50	20,303	483.88	74,212	18.17	12,997	14	5,700	0.73	9,779	556	45	73	57	14	....	1	6	....	2	66	3	....	....	....	8,636	29,511

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APPENDIX C

DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934

Unemployment Relief Work

Electoral District	Cutting and Burning New Road	Side Brushing Existing Road	Stump and Grub	Grading		Ditching	Gravelling				Clay Surfacing		Crushed Rock			Drag-ging, Miles	Culverts				Bridges											Excavation	
							New		Repairs												New			Replaced			Repaired			Painted		Earth	Rock
	Miles	Miles	Miles	New Miles	Repairs Miles	Cu. Yds.	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Crushed Cubic Yards	Hauled Cubic Yards	Road Covered Miles		Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Cubic Yards	Cubic Yards
Addington	24.23	2.00	13.49	16.61	1.50	22,959	16.67	16,106			0.63	702				864	19	12		102												131,836	62,427
Algoma	31.34	81.08	28.09	150.80		131,986	159.50	174,314			76.30	51,578	530	1,133	0.55	1,952	234	10	14	80												105,966	363,616
Cochrane North	65.76	73.66	78.16	9.34	1.57	707,417	60.61	47,133	26.70	14,458	22.85	72,859				669	190			84												7,878	23,819
Cochrane South	45.64	47.92	50.50	45.91	71.88	283,867	114.78	113,372		86,185	10.31	49,536		19,844	72.50		260			114	5											16,859	2,740
Fort William	1.36	5.12	1.85	4.43	5.44	11,823	5.57	26,777		172	2.58	14,118					1	2		14	1						2		1			154,963	2,667
Haliburton	14.49	18.30	11.03	47.16	64.78	52,008	82.85	95,241	30.53	17,406	0.90	3,385				2,257	98	416		82	4						3					178,407	522,958
Hastings East	3.20	0.50	2.04		0.25	600	18.60	15,581				15,100				13	11	2														151,522	40,169
Hastings West	1.10	0.13	0.60	14.00		510		12,133		853		9,100	5,300	5,000	10.00	41	3	3														87,712	19 552
Kenora	120.02	109.45	121.72	41.50	81.80	107,276	70.50	72,060	59.99	28,465	13.50	30,258				808	563	13		18	2			4			2					305,895	76,052
Kent East				2.60			0.30		10.60	7,904																							
Lanark	1.50	13.00	1.10	1.50	5.20	5,228	0.90	1,591	1.87	1,202	3.58	7,555				1	15	16									1					4,240	5,669
Manitoulin	13.73	51.17	16.76	30.81	72.95	124,378	55.00	43,244	51.95	13,518	18.65	27,347	102	2,560	0.25	1,029	201	29	3	29				2			3					69,710	99,486
Muskoka	11.77	45.31	23.28	36.38	33.22	21,876	106.96	131,394	4.72	3,157	4.40	3,266		2,088	2.45	674	246	112	7	126			5									616,375	102,527
Nipissing	46.96	100.33	40.24	18.60	127.62	108,914	39.09	29,429	70.28	50,588	19.59	40,503		30		788	357	59	6	12							11	1				245,576	78,154
Norfolk				4.00	0.64	15,683	4.50	7,782	1.00	1,500									1													25,300	
Parry Sound	19.23	130.20	16.30	52.24	37.83	19,144	98.58	96,173	19.90	10,775	4.00	4,198		2,028	9.00	2,100	378	15	1	102	2		6	3		2	2		2			607,491	60,632
Peterborough	13.49		7.21			14,340		14,151				20,681	2,500	8,198			7	18		75												117,165	88,538
Port Arthur	1.22	3.80	1.42	4.37	0.23	6,002	2.85	14,653		3,615		5,875				696	12			23												76,507	6,460
Rainy River	27.40	290.90	23.30	26.40	32.80	371,264	58.20	69,916	244.90	105,900	27.40	40,673				1,322	181			48							9			5		4,122	3,698
Renfrew North	9.68	15.13	8.22	14.58	13.60	120	17.12	22,751	4.30	7,156	5.76	8,974				633	63	63	4	73							2					31,488	267,340
Renfrew South	38.92	63.90	36.03	51.42	43.99	275	21.04	24,764	6.83	8,519	5.96	23,997		844		301	122	254	6	57				1			2					434,019	81,469
Sault Ste. Marie	111.90	94.40	72.00	66.70	31.05	46,285	62.50	123,135	29.10	12,616	9.30	11,446		82	0.10	10	246	1	40	21	12								1			300,621	26,267
Simcoe East	3.44	0.20	0.44	0.13		5,886	8.89	6,612	4.00	275	0.22	1,546	483	772	1.47	460	3	10		7												4,931	611
Sturgeon Falls	54.90	111.79	81.43	70.82	72.70	322,608	87.11	111,165	109.32	88,440	50.98	77,081		12,630		6,901	532	82		59	20			23			30	5		33		72,346	92,574
Sudbury	29.53	177.50	16.20	40.19	317.07	159,997	40.64	57,514	148.50	62,702	88.70	40,963		4,238	0.81	10,230	7	6	19	77	5											46,689	10,719
Temiskaming	57.90	87.90	57.11	25.46		424,736	50.72	39,608			20.16	26,299	7,470	8,522	18.63		190		1	131	3			1								162,533	4,171
Totals	748.71	1,523.69	708.52	775.95	1,016.12	2,965,182	1,183.48	1,366,599	824.49	525,406	385.77	587,040	16,385	67,969	115.76	31,749	3,939	1,123	102	1,334	54		11	34		2	67	6	4	38		3,960,151	2,042,315

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APPENDIX D

DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934

TRANS-CANADA HIGHWAY

Electoral District	Cutting and Burning New Road Miles	Side Brushing Existing Road Miles	Stump and Grub Miles	Grading		Ditching	Gravelling				Clay Surfacing		Crushed Rock			Drag-ging, Miles	Culverts				Bridges											Excavation	
							New		Repairs												New			Replaced			Repaired			Painted			
				New Miles	Repair Miles	Cu. Yds.	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Number Cu. Yds. Crushed	Number Cu. Yds. Hauled	Road Covered Miles		Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Earth Cubic Yards	Rock Cubic Yards
FORT WILLIAM.....	2.75	54.94	3.00	21.20	30.50	81,111	71.20	131,278	15.60	7,316	18.59	75,379	....	....	....	17,084	110	4	....	20	5	1	....	2	....	....	6	....	....	1	....	44,663	1,056,495
KENORA..........	20.08	47.11	93.48	115.00	4.00	59,961	73.36	137,435	7.75	2,644	34.00	960,869	....	....	....	26	97	32	....	103	13	....	....	....	....	....	....	....	....	....	....	881,193	305,916
NIPISSING........	....	2.50	....	....	....	5,509	....	145,941	....	....	....	35,006	....	....	....	....	....	....	....	57	....	....	....	....	....	....	....	....	....	....	....	279,666	94,987
PORT ARTHUR.....	8.67	73.29	11.32	19.63	10.13	73,415	18.15	69,871	....	30,659	9.13	62,311	....	....	16.00	5,022	120	1	....	15	1	....	....	....	....	....	....	....	....	....	....	282,536	137,418
RENFREW NORTH..	0.10	45.08	2.52	7.00	12.85	3,457	4.25	33,610	49.25	17,876	28.56	22,735	....	....	....	8,403	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	76,332	10,445
TOTALS.......	31.60	222.92	110.32	162 83	57.48	223,453	166.96	518,135	72.60	58,495	90.28	1,156,300	....	....	16.00	30,535	327	37	....	195	19	1	....	2	....	....	6	....	....	1	....	1,564,390	1,605,261

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APPENDIX E
DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934
Direct Relief

Electoral District	Cutting and Burning New Road Miles	Side Brushing Existing Road Miles	Stump and Grub Miles	Grading		Ditching	Gravelling				Clay Surfacing		Crushed Rock				Culverts				Bridges											Excavation	
							New		Repairs												New			Replaced			Repaired			Painted			
				New Miles	Repair Miles	Cu. Yds.	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Crushed Cubic Yards	Hauled Cubic Yards	Road Covered Miles	Drag-ging, Miles	Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Earth Cubic Yards	Rock Cubic Yards
ALGOMA		2.10	0.60	2.20	1.10	7,175	4.67	13,790	8.90	3,442						132	13		1													8,400	4,057
COCHRANE, NORTH	1.18	36.05	16.47	1.20		70,726	1.91	1,068	5.10	456	3.67	4,015				1,063	45		17	3												46	2,366
COCHRANE, SOUTH	0.57	3.15	1.80	0.95		12,318	1.00	1,343		1,230	0.35	1,994				56	4				1												390
FORT WILLIAM		7.50				294				353						6	6															525	
KENORA	2.08	10.48	2.93			559			9.75	2,357	0.33	570					3															15	
MANITOULIN																																	
MUSKOKA																																	
NIPISSING																																	
PARRY SOUND	0.58	7.54	5.21	11.23	3.50	111	39.05	26,568	8.00	567	0.75	483		10,350	8	414	49			1												18,169	1,350
PORT ARTHUR	1.62	2.75	0.37		9.49	507			3.82	3,712	0.64	1,287				6	2				1			1								166	100
RAINY RIVER																																	
RENFREW NORTH																																	
SAULT STE. MARIE																																	
STURGEON FALLS	1.84	0.87	0.75	1.23	0.75	7,968	1.00	2,864	13.62	14,062	0.75	670		337,900		489	10			2							1					740	459
SUDBURY		0.56			0.27	3,160					0.61	840																					
TEMISKAMING																																	
TOTALS	7.87	71.00	28.13	16.81	15.11	102,818	47.63	45,633	49.19	26,179	7.10	9,859		348,250	8	2,166	132		18	6	2			1			1					28,061	8,722

APPENDIX F

DEPARTMENT OF NORTHERN DEVELOPMENT—ANNUAL REPORT, 1933-1934

RECAPITULATION OF WORK SUPERVISED BY THE DEPARTMENT

Appendix	Cutting and Burning	Side Brushing Existing Road	Stumping and Grubbing	Grading		Ditching	Gravelling				Clay Surfacing		Crushed Rock			Drag-ging, Miles	Culverts				Bridges											Excavation	
							New		Repairs												New			Replaced			Repaired			Painted			
	New Road Miles	Miles	Miles	New Miles	Repair Miles	Cu. Yds.	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Length Miles	Cubic Yards	Number Yards Crushed	Number Yards Hauled	Length Road Covered Miles		Wood	Stone	Concrete	Metal	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Concr.	Wood	Steel	Earth Cubic Yards	Rock Cubic Yards
APPENDIX A.......	111.40	1010.57	127.71	90.23	1091.06	363,534	137.63	97,447	1656.48	486,624	242.83	127,366	1,516	31,406	22.81	295.532	1217	42	25	265	35	1	....	34	2	....	171	2	....	6	....	143,637	131,088
APPENDIX B.......	15.46	696.95	24.50	19.76	401.28	56,869	69.50	23,303	483.88	74,212	18.17	12,997	14	5,700	0.73	9,779	556	45	73	57	14	....	1	6	....	2	66	3	....	....	....	8,636	29,511
APPENDIX C.......	748.71	1523.69	708.52	775.95	1016.12	2,965,182	1183.48	1,366,599	824.49	525,406	385.77	587,040	16,385	67,969	115.76	31,749	3,939	1123	102	1334	54	....	11	34	....	2	67	6	4	38	....	3,960,151	2,042,315
APPENDIX D.......	31.60	222.92	110.32	162.83	57.48	223,453	166.96	518,135	72.60	58,495	90.28	1,156,300	....	....	16.00	30,535	327	37	.....	195	19	1	....	2	....	....	6	....	....	1	....	1,564,390	1,605,261
APPENDIX E.......	7.87	71.00	28.13	16.81	15.11	102,818	47.63	45,633	49.19	26,179	7.10	9,859	....	348,250	8.00	2,166	132	.....	18	6	2	....	....	1	....	....	1	....	....	....	....	28,061	8,722
TOTALS.......	915.04	3525.13	999.18	1065.58	2581.05	3,711,856	1605.20	2,048,117	3086.64	1,170,916	744.15	1,893,562	17,915	1,085,575	163.30	369,761	6,171	1,247	218	1,857	124	2	12	77	2	4	311	11	4	45	....	5,704,875	3 816,897

MISCELLANEOUS WORKS

Pavements Constructed, Miles

Bituminous Macadam..........	4.5
Crushed Stone Retread.........	25.87
New Road Constructed, Miles..	380.54
New Road Gravelled, Miles...	199.58
New Gravel on old Roads, Miles	406.78
Pavement Repair, Miles........	19.30
Dust Preventative, Calc. Chloride, Gals.......................	3,543
Surface other than Stone or Gravel, Miles.....................	32.40
Centre Strip Painted, Miles.....	23
Creeks Cleaned, Miles.........	42.14

Curves on Old Roads

	No.	Miles
Built................	14	162.61
Banked.............	11	4.75

Repairs to Roads

	Width	Miles
Widened...................		165.16
Shoulders, Miles.............		142.70
Rip Rap, Cu. Yds.............		61,553

Stock Pile

	Cu. Yds.	Av. Haul
Gravel........	48,130	......
Crushed Stone.	14,505	......
Piles Driven..................		5,488

Clearing Old R. of W.

	Cut Acres	Burned Miles
Brush.........	420	690.35
Grass and Weeds	8	745.69

Corduroy Laid, Miles..........	6.29
Corduroy Removed, Miles......	0.40
Culverts Cleared Ice and Snow...	1,385
Culverts Cleared Debris........	704
Culverts Repaired............	678
Ditches Cleaned, Miles........	838.89
Offtakes Built, Miles..........	89.90
Ditch Ext. Spread, Miles......	341.87

Guard Cable Used, Feet.......	27,181
Highway Guard, Feet........	14,022
Guard Rail Erected, Feet.....	256,780
Guard Rail Repaired, Feet....	118,538
No. Posts Set................	20,494
No. Posts Painted...........	20,582
Bridges Protected from Ice........	9
Bridges Dismantled..............	28
Concrete Piers for Steel Bridges....	6
Ferry Trips.................	19,431
Ferry, Miles.................	4,262

Standard Rd. Signs Erected.....	1,882
Standard Rd. Signs Repaired....	497
Standard Rd. Signs Repainted..	2,673
Lettered Signs Erected.........	305
Lake or River Signs Erected....	357

	No.	Miles
Road Traverse Surveys.............	42	559.05
Curve Surveys.......	137	11.75
Drain Surveys.......	25	39.93
Railway Crossing Surveys.............	9	11.00
Gravel Pit Surveys........		90 Ac
Right of Way Surveys	5	99.50 Ac.

Roads Snowploughed, Miles	2,525
Roads Sanded, Miles...............	
Loose Stone Raked, Miles......	458
Tote Road Built, Miles	15
Telephone Line Built, Miles...	70
Camps Built................	27
Ferry Shipway Built..........	1
Machines Overhauled.........	191
Guard Stones Painted.........	2,959
Stone Fill, Cu. Yds...........	30,888
Road Oil Used Cold Patch—Retread, Gals....	731,268

Temporary District Office Built.....	1
Park Land Cleared, Ac...........	914
Park Land Grubbed, Ac..........	422
Park Land Graded, Ac...........	60

Ontario Research Foundation
REPORT

For the Year 1934

Presented by the Chairman
to the Lieutenant-Governor in Council
December, 1934

◆

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 61, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

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The Honourable Mitchell F. Hepburn,
Prime Minister of Ontario,
Parliament Buildings, Toronto, Ontario.

Dear Sir:

I have the honour to submit the annual report of the Ontario Research Foundation, made to me by the Director, Dr. H. B. Speakman. This report covers the work of the Foundation for the year ending December 31st, 1934, and attached to it is the financial statement, embodying:

Exhibit A—Balance Sheet as at December 31st, 1934.

Exhibit B—Income and Expenditure Account for the year ending December 31st, 1934.

I have the honour to be,

Your obedient servant,

J. W. FLAVELLE,
Chairman.

REPORT OF THE DIRECTOR OF RESEARCH, 1934

To Sir Joseph Flavelle, Bart, LL.D.,
Chairman.

Dear Sir:

Before describing in any detail the work which has been done in the laboratories of this Foundation during the past year I should like to preface certain general observations with a very concise summary of what has been accomplished.

Textiles:

(a) The experimental study on moisture regain in wool, raw and manufactured under Canadian conditions, has been completed. The various sections of the industry are waiting for some Canadian standards, and this work is an essential preliminary.

(b) A group of knitters and Courtaulds (Canada) Ltd. continue to work with the Foundation in a successful attempt to stabilize the sale of rayon garments on the basis of guaranteed quality based on our specifications. Quality and sales are both improving steadily.

(c) The production of unshrinkable woollens is an important section of the woollen industry. A thorough investigation has been made of the theoretical foundations of present methods. A new process is now being tried experimentally in the laboratories with encouraging results.

Metallurgy:

(a) Cast iron in various new forms is arousing interest throughout the world. A large series of alloys containing traces of the rarer metals have been made.

(b) The experimental study of screw-thread design has been completed. The basic character of the problem need not be enlarged upon.

Chemistry:

(a) A new type of dehydrated lignite has been prepared on a semi-commercial scale. Both on technical and economic grounds it marks a definite advance.

(b) In the gas laboratory an improved storage tank for gas water-heaters and also a meter connection have been developed, and are now being submitted to service trials.

(c) Clays from Northern Ontario secured by field parties of the Ontario Department of Mines are being carefully tested. A promising series of ceramic bodies using Northern Ontario materials has been partially explored.

Biochemistry:

(a) A new laboratory for the estimation of vitamins in foodstuffs has been established. The service has been made use of by industries in the Province.

(b) In the fat laboratory a year has been spent investigating the effect of traces of impurities in hydrogen when used in catalytic processes. This work is supported by Canada Packers.

(c) Our fundamental study of patent leather manufacturing has continued, leading towards the end of the year to our erecting within the Foundation two commercial ovens in order to investigate the practical problems of a producer in this Province.

Pathology:

(a) The field trials of our Area plan for the eradication of Bang's disease continued until the end of August, with no loss in our confidence that this is the line of progress. No cure has been found in the laboratories.

(b) A preliminary survey is being made of the parasites found in domesticated animals and game in this Province. At present we are thinking mainly of training a man for future service in this field.

Agriculture:

(a) A disease of oats which has been gradually spreading through the central part of southern Ontario during the past eight years has been described and diagnosed for the first time. Field trials have lead to certain control recommendations. This disease threatens 70,000 acres of good farm land.

I have omitted in this summary any reference to the several hundred minor problems which have been brought to the Foundation during the past year, and satisfactorily solved.

May I submit for your consideration the following reflections on the above.

It has been a good year, and on the basis of what has been accomplished may we not plead for a more convincing and earnest application of some of these research findings both in industry and in agriculture. Without advancing any claim to originality in ideas this Foundation has shown conclusively that Bang's disease can be checked and gradually eliminated. Our 200 farmers made great strides and without compensation removed reactors for slaughter. At the present time the U.S. Government is spending in one year 17 million dollars to assist the individual States in the programme of eradication. Is it wise to drop at this stage the beginnings of a much cheaper and equally effective plan in Ontario? One is concerned for the future of our cattle and dairy industries insofar as exports are concerned. The regulations controlling the entry of cattle into the States are strict now, and I raise the point as to what they will be when at great cost the American people have advanced towards their objective of clean herds, and we are still drifting. This disease is still costing the farmers of Ontario several millions per annum.

The fruits of constructive work in our industrial laboratories should be twofold in character. In the first place they should prove a solution to a real problem at the disposal of those for whom the work was undertaken. In the second place the knowledge of such work, gradually disseminated throughout the Province, ought to influence the mental outlook of those controlling industry.

The very nature of much of our work on the industrial side prohibits the effective legitimate use of what I may describe as advertising—in essence the answer to a question which must arise in the minds of many—what are you doing? To a slow but steadily increasing extent we are undertaking the investigation of problems which necessitate a background of knowledge which is freely given, but with the assurance that such information and the results of our work will be treated confidentially. This does not apply of course to work originating within the Foundation, and supported by its funds. During the past year slightly over 100 firms within the Province have submitted problems, and our income from this source has reached $24,439, an increase of $6,000 or 33% over last year.

There are two aspects to scientific work performed in laboratories similar to those of the Foundation. It gives pleasure to those who perform it, and often is the direct cause of friendly contacts and collaboration with officers of Government, agriculturists and industrialists. Day by day the exchange of ideas and experience goes on with investigators all over the world, and reports and published papers have value in that they contribute to the total available knowledge in various fields. This is one side of the picture. What effect does this have on the Province? It is one thing to diagnose and describe carefully and accurately the cause of a disease of oats or a method for the elimination of Bang's disease. The final step on the road to economic improvement lies in the field of administration and not research. It is equally true to say that until industry is manned with personnel equipped and anxious to apply the results of scientific research there will be a disparity between the potential and realized results of our work.

TEXTILE RESEARCH

Staff: Dr. Goodings, Dr. Hall, Dr. McKay, Mr. Coke, Mr. Love

In earlier reports reference has been made to our attempts to foster a close working relationship between the woollen manufacturers in their corporate capacity and this Foundation. Following in broad outline the policy adopted in Great Britain an attempt was made to secure a guaranteed support for research work which might be agreed upon as offering a reasonable promise of benefit to the industry as a whole. For various reasons this attempt failed, and during the past two years work in these laboratories has been devoted to problems suggested by individual manufacturers, problems suggested by our own staff, and a co-operative research undertaken on behalf of Courtaulds (Canada) Ltd. and a group of knit-good manufacturers.

It is proper that I should associate the steady increase in the number of manufacturers and others who are using the facilities offered with the earnest efforts made by the staff to familiarize themselves with progress in textile technology and to study effectively the problems arising in our textile plants. During the past year 54 companies have submitted questions which involved laboratory study to a greater or less degree. They include manufacturers of woollen, cotton, silk and rayon goods, firms in allied industries such as dye-stuffs and oils, textile retailers and manufacturers nominally in other categories but users of large amounts of textile materials, such as the automobile industry.

In addition to these investigations a small staff has handled a large number of enquiries which reach the foundation by letter, by telephone or by means of personal calls. It is difficult to estimate the constructive benefit to those making such use of the laboratories, and therefore it is impossible to balance the service rendered against the slowing up of laboratory work by repeated interruption of experimental work.

The general work undertaken for outside companies has varied a great deal as is shown by the following short list of characteristic examples:

Fading tests on lithographic ink pigments.
Information on the construction of sulphur bleach houses.
Cotton fibre quality in knitted fabrics.
Deterioration in woven felt materials.
Report on rejected, imported yarn.
Causes of shade variation in fancy wool-rayon twist yarn.

Less frequently the Foundation has been called upon to investigate problems of major inportance in the textile field. It gives some satisfaction to assist in the solution of the numerous "troubles" of this general field, but we feel that progress will be slow until the research method and habit of mind are introduced into the manufacturing story steadily and persistently. A manufacturer wished to supply to a Canadian company Tussah silk of such electrical conductivity specification that it could safely replace an imported material. Last year methods for the manufacture of this material were worked out in these laboratories and tested in the plant. This year our contribution has been an attempt to devise an economical and satisfactory test for the output of the plant.

During the year we were asked to investigate the causes of a manufacturer's failure to meet the specifications of a large consumer of his product. A careful study was made of all stages of plant operations, and the conclusion was finally reached that the textile material used was the probable source of failure. Suitable equipment was constructed to enable a laboratory study to be made of this material in relation to the needs of this particular industry. The final result was that the equipment was taken over by the manufacturer and is now being used to test each shipment of material. The criteria of a sound raw material are now better understood, a less costly type can be used satisfactorily and the original manufacturing problem has disappeared.

During the year, the Fellowship supported by Courtaulds (Canada) Ltd., was slightly changed in its control and support. Three firms manufacturing knitted goods of rayon now contribute to the Fellowship and are represented on the Advisory Committee which has been established. These changes are all to the good. Our staff have greatly benefitted by the closer contact established with these firms and they have been able to come to closer grips with the manufacturing problems which the Control plan uncovers. During the year the original specifications for men's and women's garments have been revised, and new ones for children's garments have been drawn up and accepted by the donors of the Fellowship. In the 1935 season these new lines will be placed on the market.

At the present time garments are being purchased at points across Canada, others are secured from the manufacturers and a rigid and careful inspection of all is being made. This year, three times the amount of inspection work has been carried out compared with last year. In addition, questions arising from this work which suggest possible improvements in manufacturing methods are at once investigated. The "wet" bursting strength of rayon garment is a standard test, and as its name suggests it is expected to measure accurately the strength and to reflect the quality of garments. Our work suggested that the standard method used on this continent for this test was open to criticism, and in collaboration with the Massachusetts Institute of Technology, the Lowell Textile Institute and the manufacturers of the Mullen Tester, the question was fully investigated and a new standard test has been agreed upon. A study of shrinkage after laundering has been continued. Shrinkage has been shown to depend, at least in part, on the methods of finishing knitted rayon fabric in different mills.

The ultimate test of the Quality Control work is the effect that it has had on the rayon and the knitting industries. Briefly, we can report a stabilization based on cooperation and mutual confidence, followed by a steadily increasing sale of good quality and standardized garments.

Textile fabrics in general and woollen materials in particular shrink during the wearing period, mainly brought about during washing. In recent years, processes have been developed and are being used commercially to prevent or control within small limits this shinkage. This whole problem has been gone into critically and experimentally, and the investigation is still in progress. Already a body of useful information has been obtained which will enable the staff to discuss existing plant methods. The basis for the semi-commercial and plant tests which are being conducted is a thorough study of the effect of chlorine, bromine and iodine on wool under a variety of physical conditions. A new and promising method for the elimination of shrinkage is at present being tested in the laboratories and in collaboration with a manufacturer.

In previous reports, reference has been made to the work done on the testing of dyestuffs in fabrics for their fastness to light. The influence of the relative humidity of the surrounding atmosphere and the temperature at the face of the exposed fabric were observed, and in our machine by which fading tests are made, these factors can be controlled. It was necessary, however, to devise experimental methods for a more accurate determination of the fabric temperature, especially in the case of plush material, under varying conditions of illumination and wind speed on and past the exposed sample. The data obtained will permit of still greater precision in our fading measurements.

The fading of dyestuffs under artificial illumination does not permit of a formulation of simple rules by which the behaviour of a single dyestuff can be predicted. One of those which behaves in an anomalous way has been studied in detail, and the loss in colour value has been followed progressively by means of the spectrophotometer. The importance of hue changes has been noted, and these facts will be correlated with existing systems for the classification of dyestuffs which neglect hue change in measurements of fading.

Fading tests and a comparison of fading results obtained in several types of laboratory equipment have been made in collaboration with the American Association of Textile Chemists and Colorists.

METALLURGY

Staff: Mr. Ellis, Mr. Gordon, Dr. Goodier, Dr. Farnham

There has been a considerable increase over last year in the requests from outside the Foundation for work on research problems, a total of 60 compared with the previous 40. The type of these problems will be incidated by the following examples:

Investigation of failure of a lead-lined electrotyping vat.
A report on the melting of steel in rotary furnaces.
An improved method for the recovery of metal from dross.
A study of the causes of failure of welded steel pipes.

The manufacturers within the field covered by these laboratories continue to make use of the staff as a source of scientific and technical information, in fact the requests for this form of service are increasing each year. Without wishing to cut ourselves off from the contacts which these requests establish, it should be recognized that our primary function is to carry out laboratory investigations. There is nothing which causes a breakdown in the smooth running and efficiency of an experimental laboratory so rapidly as a succession of interruptions. At the present time we are giving careful consideration to this problem, and we hope to develop some method of dealing with the situation.

During the spring months, a course of 10 lectures was given in the evenings at the Foundation on the general subject, "Fundamentals of the Heat Treatment of Iron and Steel." Thirty-five technical workers from a wide area attended the course with great regularity, and expressed their appreciation of the opportunity afforded them to keep abreast with this field.

The investigation of white cast iron has continued steadily throughout the year. As a result the staff has determined the effects of carbon, silicon, manganese, phosphorus and copper on the characteristics of white cast iron, and particularly upon its resistance to abrasion. This research has involved the preparation of scores of alloys of distinct composition which have all been investigated chemically, physically and in the wear-testing apparatus. During recent years there has been a marked renewal of interest in special forms of cast iron, and this research should produce results of value to the metallurgical industry of Ontario.

The experimental study and mathematical treatment of screw-thread behaviour under load was also continued. A preliminary report was presented at the Fourth International Congress for Applied Mechanics which was held in Cambridge, England during July.

We are indebted to Mr. R. W. Brigstocke, the Lake Shore Mine, and the McIntyre Mine for gifts of ore and tailings.

CHEMISTRY

Staff: Dr. Westman, Mr. Schierholtz, Mr. Tasker, Mr. Maconachie, Mr. Wright, Mr. Staples

In cooperation with the Provincial Department of Mines, a detailed study has been completed of samples of the refractory clays obtained by a field party from various places along the Mattagami River in Northern Ontario. Clays with high refractory properties were more common than previous work would suggest. The laboratory tests have indicated that good fire-clay brick can be made from some of these, although final proof can only come when larger samples are available.

A limited amount of laboratory work and a study of markets have been carried out to discover a possible use for mine tailings in ceramics. The results obtained have been sufficiently encouraging to justify a larger scale programme along similar lines during 1935.

Using the semi-commercial drier which was described in our last report about 1,000 lbs. of dehydrated lignite containing approximately 3 per cent. of moisture were made. An intensive laboratory study has been made of this material. It has a high density, is not liable to spontaneous combustion, contains 10,520 B.T.U. per lb., and does not quickly pick up water from the surrounding atmosphere. It can therefore be shipped safely and economically, and we have every reason to believe that it would prove an admirable fuel for use in power plants equipped with pulverizers etc. The cost data for producing this fuel and a lump fuel more suited to railway and domestic conditions have been re-examined and brought up to date.

The price trend of fuels in Northern Ontario is being followed by means of a monthly survey, made possible by the kind cooperation of representative mines and industrialists.

During the year we have completed the study of the rapid corrosion and failure of galvanized iron tanks used in domestic hot-water units heated by gas. A vitreous enamelled tank has stood up under a prolonged and accelerated test without evidence of corrosion. This tank can be made by orthodox methods, and in the near future a limited number will be installed in homes where severe corrosion has been experienced. As a by-product of this research a more scientific study has been made of the corrosion of zinc by distilled water.

It is universal practice on this continent to connect the domestic gas meter to its pipes by means of a brass joint containing a leather washer. In service, these connections develop small leaks, and time and expense are consumed in correcting them. After submitting the washer to a series of tests the conclusion was arrived at that here lay much of the cause of the leaks. The fitting has been slightly modified in form to take a ring of rubber which is circular in cross section. After rigid tests in the laboratory the new connection is now being tested in service by several Gas companies.

A method had been developed for cleaning without injury the enamelled parts of domestic gas stoves.

In our last report reference was made to our work in connection with the study of rapid tarnishing of gilt wallpaper. We succeeded in producing a paper in the laboratories which would take the gilt, and remain fresh and untarnished for long periods under severe conditions. This was accomplished by adding to the paper traces of barium bicarbonate. During the past year, our efforts have been directed towards a solution of some of the difficulties which are encountered when this method has to be introduced into the regular sequence of processes in the paper mill.

In order to make possible a study of the distillation of immiscible liquids, the following steps have been taken. A fractionating column of the Podbielniak type has been set up, and systematically tested by distilling mixtures of the better known organic liquids. A series of the glycols has been synthesized, and purified. These will be available for the later attempts to separate under controlled conditions, mixtures of organic substances of industrial importance.

During the past year, there has been a slight improvement in the demand for the services of this Division in solution of problems which are best designated as General Chemistry. The need for research of this nature is clearly indicated by the steadily increasing number of enquiries we receive regarding problems and ideas. Far too many of these contacts end abruptly when the discussion turns to the necessary cost of carrying out laboratory work. In all 20 problems have been investigated this year in comparison with 14 in 1933. Definite solutions for these were found in all cases and they represent a real contribution to industrial progress and efficiency. The variety of this research work is best indicated by simply enumerating the nature of some of the materials investigated: leather dust, badminton shuttlecocks, sponges, hot-water bottles, vanillin, foil labels, printing inks, concealed radiators.

BIOCHEMISTRY

Staff: Dr. Barbour, Dr. Hanes, Mr. Henry, Mr. Lemon

The Fellowship, supported by Hiram Walker—Gooderham and Worts Ltd., was continued during the early months of 1934. During this period, the principal problem under investigation was in connection with beer-still slop. At one of the plants of the Company, it was desirable to remove as completely as possible, organic matter in suspension and dissolved in the slop in order to permit its discharge into a nearby stream. The protein and other solids contained in the slop have a considerable positive value if they can be concentrated and dried by economical methods. Various mechanical methods with and without chemical treatment were investigated. It was shown that suspended material can be completely and economically removed, but that the dissolved material, traces of lactic acid, sugar and protein cleavage products, cannot be reduced economically.

At the request of Canada Packers Ltd., an investigation was started during March and is still in progress, on the influence of traces of various impurities which occur in hydrogen gas on the hydrogenation of vegetable oils in the presence of a nickel catalyst.

With the increased demand for facilities in Ontario for the biological estimation of various vitamins in foods it was deemed advisable to provide additional accommodation for test-animals and improve in every possible way this part of the Foundation's equipment. During the past year seven companies have made use of this Department, and 21 quantitative assays have been made.

A new method for the determination of vitamin B has recently been proposed by Birch and Harris. This involves measurements of the heart rate of rats under various conditions of depletion and dosage with the vitamin, using an electrocardiograph. Owing to the courtesy of the Department of Psychology of the University one of these instruments was available on loan in our metallurgical department, and the opportunity was created of repeating and confirming the work of the two English investigators. The new method is more rapid and much cheaper than older ones, and it should encourage our manufacturers to check carefully all claims made for their foodstuff products insofar as vitamins are concerned. If it is good business to state the presence of vitamins in a product it is surely wise to check such statements from time to time in a properly equipped laboratory and by competent men.

Leather—Four manufacturers of leather have submitted a total of seven problems to us for investigation during the past year. These problems all related to existing defects in manufacturing methods or to suggestions for their further improvement. In one case methods were developed for the manufacture of a type of leather not manufactured in Canada but required by the rubber industry.

Semi-commercial experiments have been conducted in finishing patent leather under conditions of controlled temperature and humidity. The results obtained in 1933 were confirmed on a larger scale, and loss of area from shrinkage was practically eliminated. Useful data was also obtained on the effect of temperature and humidity on the rate of drying of the varnish.

Plant Physiology—The past year has been devoted to studies bearing on the question of the nature of starch. The field of starch chemistry presents many unsolved problems of major importance from theoretical and practical points of view, alike.

The principal investigation carried out during the year has consisted of a detailed study of the breakdown of starch under the action of two widely differing types of starch-splitting enzyme, the dextrinogenic and the saccharogenic amylases of malt. The results of this study have lead to certain new conceptions with regard to the nature of starch.

Incidental to the main investigation, the question of "solubilisation" of starch has been studied with the result that we are arriving at a new outlook toward this process.

Further observations have an important bearing on the question of the blue coloration which results when starch is treated with iodine. During hydrolysis by most amylases this iodine coloration disappears. By simple chemical means it has been found possible to regenerate this property.

AGRICULTURE

Staff: Mr. Jarvis, Mr. Chapman, Dr. Skey

In 1932 as a result of our close contact with the farmers of the Schomberg district our attention was called to a serious menace to mixed farming arising from an increasing difficulty to grow good crops of oats. The problem was not new, but the area in which the symptoms were observable and their intensity had both increased during the previous six years. Last year we made preliminary observations, and in our last report a fairly complete description was given of this disease, but at that time we were unable to state the cause or suggest suitable remedies.

In the early months of this year a Committee sat at frequent and regular intervals to discuss and plan a research programme in connection with this problem. We are greatly indebted to Professor Thomson and Professor Bailey of the Department of Botany in the University of Toronto and to Professor Runke of the Agricultural College, Guelph, for their suggestions and for placing at our disposal equipment etc.

for use in the field and laboratory. The experiments which were subsequently carried out on farms seriously affected by this disease would have been impossible without the hearty assistance and cooperation received from the owners. Land was placed at our disposal, machinery and labour contributed, and much personal kindness shown to the members of the staff who lived in the area for the summer and autumn months. Altogether it has been an encouraging and helpful experience.

Soon after the oats planted in the spring began to appear it was found that the primary root systems were infected with the larvæ of a nematode. The particular species is *Heterodera schachtii* Schm. and although it has been known to European workers for many years it has not before been recorded in Canada or the United States as the primary cause of a disease of the oat plant.

Fertilizer experiments were conducted to discover whether the absence or lack of any of the essential elements was a contributing factor. No such relationship was found, although a by-product of this work was a clear demonstration of the value of superphosphate as a fertilizer in this region.

A survey of approximately thirty square miles of country, established the important fact that 137 fields of infected spring grain were almost completely confined to one soil type. This work has focussed attention on the existence of and the problems associated with this large area of alkaline soil in central Ontario.

In the near future we hope to publish further data, and have already conveyed to the farmers in this district our present recommendations regarding control measures. We know of no economical and effective method for destroying the nematodes in soil which is heavily infested. The use of fertilizers is no cure. We have strongly recommended farmers to limit as much as possible the sowing of oats in the district, and to rotate crops in such a way that individual fields are given long periods between successive crops of oats.

During the early part of the season we continued our investigation of the distribution and causes of "peach yellows" in the Niagara District. The loss of trees in some orchards has become serious, and we hope that at the end of another season's work we may be able to present a full report to the interested growers.

The problems associated with the marketing of grapes by growers in the Niagara District have been very much before the public during recent years. Inevitably the vicissitudes of the wine industry, at present the main consumer of grapes, influence the returns to the growers. A member of the staff has spent the major portion of his time investigating these industries from the economic standpoint. A good deal of valuable historical and economic data has been accumulated, and this may provide a basis for later recommendations.

PATHOLOGY AND BACTERIOLOGY

Staff: Dr. Hadwen, Dr. Gwatkin, Mr. Fallis, Dr. MacLeod

During the past year, the work which has been in progress for five years on Bang's disease, bovine contagious abortion, came to a conclusion. This is an opportune time to review not merely the results of the past year but also the work as a whole. There is a grave danger that with the comparative improvement in conditions in the herds of this Province, and owing to prevailing economic conditions, a sense of security may develop and a reluctance to tackle problems as they arise. We shall slowly but inevitably slip back, eventually to face with some discouragement, the old problems.

What were the conditions which determined our undertaking this work? Shortly after this Foundation was established in 1928 we began to receive enquiries, in writing and by personal visits, as to what steps the Foundation proposed to take to combat the most serious disease which the farmers and stockbreeders of Ontario were meeting within their herds. Apart from the general feeling of anxiety and helplessness it was impossible to obtain from these men any accurate picture as to the prevalence of the disease or its economic consequences. One quickly came to realize that owning to the stigma attaching to a herd known to be infected, it was too much to expect that any reliable body of information existed or could readily be obtained.

Our first reaction was to consult the professional body of veterinarians, individually and collectively. The response was one of even greater anxiety and perplexity. With regard to methods of diagnosis, possible remedies and national policy there were strong and conscientious differences of opinion. In particular one noted a lack of confidence in the reliability of the agglutination test, and strongly opposing views as to the efficacy or wisdom of permitting the production and use of vaccines, both dead and alive, containing the specific organism, and to be used for the inoculation of animals.

About this time the medical profession and health authorities were beginning to take a much more active interest in Bang's disease owing to the fact that cases of undulant fever were being diagnosed in the Province. This disease in man is caused by the specific organism of Bang's disease, and in several cases the causative agent had been traced to raw milk from infected cattle.

In 1929 we received the following letter from the late Hon. J. S. Martin, then Minister of Agriculture:

DEPARTMENT OF AGRICULTURE

Office of the Minister

April 11, 1929.

My Dear Sir Joseph:

"I am writing you about that great scourge of contagious abortion. There is no doubt that there is more of this disease in the Province than we would care to admit and I feel that the time has come when extensive investigations should be made into the possibility of checking or curing this dread disease. It has for some time been the practice of the Ontario Veterinary College to send out live vaccine and the Department of Health is protesting that this is not good practice so far as the health of our people is concerned. I believe also there is a difference of opinion among Veterinarians and the whole matter is one that is giving the Department of Agriculture great anxiety.

I have discussed this with Dr. McGilvray, Principal of the Ontario Veterinary College, and he agrees with me that it would be very desirable if the Ontario Research Foundation could make an extensive inquiry into the whole matter. I shall be glad if you will see your way clear to undertake this inquiry as one of our most pressing problems."

Hoping I may hear from you at an early date, I am,

Yours sincerely,

JOHN S. MARTIN,
Minister of Agriculture.

Sir Joseph Flavelle,
Chairman, Ontario Research Foundation, Toronto.

In response to his request an Advisory Committee was appointed on which the Agricultural College, the Veterinary College, the Health of Animals Branch of the Dominion, the University of Toronto and stockbreeders were all represented. It was on the recommendation of this Committee and after full discussion that certain lines of investigation were undertaken and maintained for a period of four years. The results of this work are summarized below:

(a) From a careful and continuous study for four years of between two and three thousand cattle the conclusion has been reached that this disease is responsible for a loss to farmers and breeders in Ontario of from three to four millions of dollars per annum. A part of this loss is widely spread over the industry, but a large part is concentrated on a small and changing group of men who are struggling with violent and sudden outbreaks of the disease which spread rapidly through their herds. In the absence of intelligent and sustained control each introduction of a new animal is a possible starting place for such an outbreak.

(b) We have systematically investigated many of the available, suggested cures for Bang's disease. The chemical remedies are useless, and their sale constitutes a drain on the farmers resources. So far we have obtained no evidence to support the claim that dead cultures or preparations containing the products of the organism have value in curing or guarding against infection. Live cultures are a potential menace, because they may infect. Even if the usual consequences of infection are not realized the animal reacts to the agglutination test and in practice must be regarded as infected. No plan of eradication could distinguish between these and animals infected in the natural way by contact, etc. Quite recently live cultures of low virulence have been used and recommended by competent authorities in the United States. We would strongly recommend that as soon as possible these claims be verified in Canada by animal trials.

(c) The agglutination test for determining the presence or absence of infection has been the chief instrument in all our work. It is consistent and reliable when certain simple but essential conditions are rigourously maintained. The contradictions and mistakes which undoubtedly exist and which are the cause of doubt regarding the value of the test, are simply the evidence for our view that no testing should be done except by competent and reliable men.

(d) The private stock breeder is often unwilling to make the sacrifice associated with the destruction of infected animals. With some hesitation we have co-operated in a study on practical lines of the two or three unit system, under which positive, suspicious and negative animals are segregated. The hope which is the mainstay of the plan is that the additional trouble and expense will be justified by the crop of healthy calves obtained from infected animals in which the disease has become quiescent. That success can be achieved by this plan, provided the rules laid down are rigidly followed, is shown by the following figures. They show the condition of one of these herds before and after this work was undertaken.

TWO-UNIT HERD

	Herd Total	Infected	Suspicious	Clean
1929	84	47	2	35
1932	82	39	6	37
1933	126	55	4	67
1934	160	13	2	145

Note: The two-unit system was started in 1933. The figures illustrate the building up of a clean herd and the gradual elimination of reactors.

(e) In the earlier stage of the work we were enabled by the courtesy of the Minister and officers of the Provincial Department of Health to include in our survey the herds associated with the Hospitals under their control. During the past two years we have co-operated with the Department in an earnest effort to remove reactors from these herds. The problem was not an easy one owning to the necessity for maintaining a constant supply of milk and the replacement of reactors by animals purchased from other herds. It is a pleasure to record the change in these herds indicated in the following table:

HOSPITAL HERDS

	1931–32			1934		
	Infected	Suspicious	Clean	Infected	Suspicious	Clean
E.......	12	2	29	0	0	47
Y	35	12	8	0	0	51
I.......	7	5	38	0	0	38
J.......	22	11	17	0	0	40
AA.....	10	2	26	0	0	35
B.......	22	8	57	0	0	73

The Deputy Minister of the Department also reported to the committee that during the past year the herds had produced an increase in the supply of milk amounting to 300,000 lbs.

(f) What is the value of all this to the average dairy farmer of Ontario? Assuming that he has the average amount of infection in his herd what can he do? The capital expenditure and increased labour cost associated with the 2 or 3 unit systems are clearly out of the question. It is doubtful whether as an individual he will face the immediate loss associated with the slaughter of reactors in order to obtain the reward of greater efficiency and profit. We would suggest also that in Ontario no immediate prospect exists of placing on the community as a whole the cost of this cleaning up by the offering of compensation for animals destroyed. On a limited scale, and in the Schomberg district, the work of this Committee has demonstrated that the clean Area plan is the best solution of the farmers problem, and that at a very low cost to the State farmers will co-operate with each other and with the supervising authority.

SCHOMBERG AREA

	1932	1933	1934
Number of Farmers....................	59	62	67
Other Cattle Owners..................	17	15	12
Number of Adult Cattle...............	655	797	934
Number of Infected During Year........	80	19	3
Infected in Area......................	14	0	0
Suspicious in Area....................	3	5	4
Clean Animals.........................	638	792	930

Note: Attention is called to the considerable increase in the total of animals in Area; the results show also how the disease has been first controlled and then eliminated.

The statistics with regard to the Area are impressive enough, but they do not convey the more general effect on the whole scheme of farming operations.

In a previous report mention was made of the great importance of having supervising skill combined with leadership in this or any similar Area. We have been fortunate in this respect, and success on a larger scale, if it is ever attempted, will depend on the supply of men of the type of Dr. A. H. MacLeod in our farming areas. That this is required is clearly indicated by an experience of the past year. On two occasions animals carrying infection were introduced into the Area as a result of breaches of the regulations. Fortunately no serious consequences followed.

At the present time the minds of those directly and indirectly interested in agriculture are occupied by other and more pressing problems. Sooner or later, however, a renewed interest will develop in diseases and other handicaps to farming efficiency. When this stage develops the work and experience of the past four years should prove of great value to the Province.

At the request of the Northwest Territories Council, Ottawa, our senior pathologist visited the Eastern Arctic, making the trip on the steamer of the Hudson's Bay Company. The object of the journey was to report to the Federal authorities on the possibility of introducing reindeer into this part of Canada in order to provide food, etc., for the native population, and to study the condition of the dogs so extensively used for transport by both the native and white population. Reports on these matters have been submitted, and we have received grateful acknowledgement from Ottawa. In addition to securing the above it was possible to collect and bring back to the Foundation a certain amount of biological material which we hope to investigate and report upon later.

All of which is respectfully submitted.

Faithfully yours,

H. B. SPEAKMAN,
Director.

Appendix A

ADVISORY COUNCIL

Chairman: Sir Joseph Flavelle, Bart.
Vice-Chairman: E. Holt Gurney Esq.
Advisory Council:

W. J. Bell, Esq., B.S.A.	Principal, Kemptville Agricultural School, Kemptville, Ontario.
J. P. Bickell, Esq.	President, McIntyre - Porcupine Mines, Ltd., Standard Bank Bldg., Toronto.
J. H. Black, Esq.	Vice-President, Spruce Falls Power and Paper Co., 330 Bay Street, Toronto.
N. E. Bolton, Esq.	Research Department, T. Eaton Co., Ltd., Toronto.
Thomas Bradshaw, Esq.	President, North American Life Assurance Co., Toronto.
H. H. Champ, Esq.	Vice-President, The Steel Company of Canada, Ltd., Hamilton, Ont.
G. I. Christie, Esq., B.S.A., D.Sc.	President, Ontario Agricultural College, Guelph, Ontario.
A. L. Clark, Esq., B.Sc., Ph.D.	Dean, Faculty of Applied Science, Queen's University, Kingston, Ont.
Elmer Davis, Esq.	Vice - President, A. Davis & Son, Ltd., Kingston, Ontario.
R. C. Dearle, Esq., M.A., Ph.D.	Professor of Physics, University of Western Ontario, London, Ontario.
W. A. Dryden, Esq.	Stock-breeder, Maple Shade Farm, Brooklin, Ontario.
Kenneth J. Dunstan, Esq.	The Bell Telephone Company of Canada, 76 Adelaide Street, West, Toronto.
J. G. FitzGerald, Esq., M.D.	Director, School of Hygiene and Connaught Laboratories, University of Toronto.
R. M. Jenkins, Esq., V.S.	Manager, Don-Alda Farm, Donlands, Ontario.
Louis Lang, Esq.	President, Lang Tanning Co., Ltd., Kitchener, Ontario.
G. C. McEwen, Esq.	Vice-President and General Manager, Imperial Varnish & Colour Co., Ltd., 6 Morse Street, Toronto.
Robert McEwen, Esq.	Stock-breeder, Alloway Lodge Stock Farm, Byron, Ontario.
George McLaughlin, Esq.	Box 235, Oshawa, Ontario.
J. Stanley McLean, Esq.	President, Canada Packers, Limited, Toronto.
J. C. McLennan, Esq., O.B.E. Ph.D., F.R.S.	Professor Emeritus of Physics, University of Toronto.
Humfrey Michell, Esq., M.A.	Professor of Political Economy, McMaster University, Hamilton, Ont.

Robert Miller, Esq.	Stock-breeder, Stouffville, Ontario.
W. Lash Miller, Esq., B.A., Ph.D.	Professor of Physical Chemistry, University of Toronto.
Paul J. Myler, Esq.	President, Canadian Westinghouse Co., Ltd., Hamilton, Ontario.
T. A. Russell, Esq., LL.D.	President, Massey-Harris Co., Ltd., Toronto.

ADVISORY RESEARCH COMMITTEES

Contagious Abortion in Cattle—Committee of Enquiry

Chairman:	
T. A. Russell, LL.D.	President, Massey-Harris Co., Ltd., Toronto.
Vice-Chairman:	
Geo. W. McLaughlin	Stock-breeder, Oshawa, Ontario.
Secretary:	
Ronald Gwatkin, D.V.Sc.	Fellow in Veterinary Research, Ontario Research Foundation; Bacteriologist, Ontario Veterinary College, Guelph.
Sir F. G. Banting, M.C., M.D., LL.D.	Professor of Medical Research, University of Toronto.
G. I. Christie, Esq., B.S.A., D.Sc.	President, Ontario Agricultural College, Guelph, Ontario.
W. A. Dryden	Stock-breeder, Maple Shade Farm Brooklin, Ontario.
J. G. FitzGerald, M.D., LL.D.	Director, School of Hygiene, University of Toronto.
D. T. Fraser, M.C., B.A., M.B.	Professor of Hygiene and Preventive Medicine, University of Toronto.
Seymour Hadwen, D.V.Sci.	Director of Veterinary Research, Ontario Research Foundation.
Oskar Klotz, M.B., M.D., C.M.	Professor of Pathology and Bacteriology, University of Toronto.
C. D. McGilvray, V.S., M.D.V., D.V.Sc.	Principal, Ontario Veterinary College.
E. A. Watson, V.S.	Chief Animal Pathologist, Health of Animals Branch, Ottawa, Ont.

Contagious Abortion in Cattle—Provincial Hospitals Committee:

F. G. Beardall	Provincial Secretary's Department.
Robt. Beatty	Director of Government Farms, Ontario Reformatory, Guelph, Ont.
Ronald Gwatkin, D.V.Sc.	Fellow in Veterinary Research, Ontario Research Foundation.
Seymour Hadwen, D.V.Sci.	Director of Veterinary Research, Ontario Research Foundation.
B. T. McGhie, M.D.	Chief Director of Hospital Services.
H. B. Speakman, D.Sc.	Director, Ontario Research Foundation.

Appendix B

ONTARIO RESEARCH FOUNDATION STAFF

December 31st, 1934

Director—H. B. Speakman, D.Sc. (Manc.).
Secretary—Ralph Skelton, B.Sc. (McGill).
Librarian—Miss Maynard Grange
Assistant to the Secretary—Miss Margherita Lombardo
Artist—Miss Margaret Clarke

METALLURGY

Director—O. W. Ellis, M.Sc. (Birm.)
Secretary—Miss L. L. Blackburn
Research Fellow—J. R. Gordon, B.Sc. (Queen's)
Research Fellow—N. Goodier, Ph.D. (Cantab.), Sc.D. (Mich.)
Research Fellow—G. S. Farnham, B.A., M.Sc. (Queen's), Ph.D. (Manc.)
Instrument Maker—J. F. Low

CHEMISTRY

Director—A. E. R. Westman, M.A., Ph.D. (Tor.)
Secretary—Miss Marjorie MacPherson
Research Fellow—O. J. Schierholtz, B.A.Sc. (Tor.)
Research Fellow—Cyril Tasker, M.Sc. Tech. (Manc.)
Research Fellow—J. E. Maconachie, M.A. (Tor.)
Research Fellow—T. J. Wright, M.A. (Tor.)
Research Fellow—M. L. Staples, B.A. (Tor.)

TEXTILE RESEARCH

Director—A. C. Goodings, M.A., Ph.D., (Leeds)
Research Fellow—R. O. Hall, Ph.D. (Leeds)
Research Fellow—R. W. McKay, M.A., Ph.D. (Tor.)
Research Fellow—C. E. Coke, M.Sc. (Man.), M.A. (Tor.)
Research Fellow—F. W. Love, B.A.Sc. (Tor.)
Assistant—Frank Bishop

PATHOLOGY AND BACTERIOLOGY

Director—Seymour Hadwen, D.V.Sci. (McGill), F.R.S.C.
Secretary—Miss Ruth MacKenzie
Research Fellow—Ronald Gwatkin, V.S., D.V.Sc.
Research Fellow—A. M. Fallis, B.A., (Tor.)
Area Veterinarian—A. H. MacLeod, V.S.
Animal Keeper—J. E. Pritchard

BIOCHEMISTRY

Director—H. B. Speakman, D.Sc. (Manc.)
Secretary—Miss Suzette Troop
Research Fellow—A. D. Barbour, B.A.Sc., M.A., Ph.D. (Tor.)
Research Fellow—W. C. Henry, B.A. (Tor.)
Research Fellow—C. S. Hanes, B.A. (Tor.), Ph.D. (Cantab.)
Research Fellow—H. W. Lemon, M.A. (Tor.)

AGRICULTURE

Director—H. B. Speakman, D.Sc. (Manc.)
Research Fellow—T. D. Jarvis, B.S.A. (Tor.)
Research Fellow—B. P. Skey, A.E. (Prague), M.A., Ph.D. (Tor.)
Research Fellow—L. J. Chapman, B.S.A. (Tor.)

Appendix C

LIST OF PUBLICATIONS TO DECEMBER 31st, 1934

Barbour, A.D.

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*A note on some intermediate Hosts of *Echinostoma revolutum* (Froelich). *Proc. Helminthological Society*, 1934.

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*Compression of Rectangular Blocks, and the Bending of Beams by Non-Linear Distributions of Bending Forces. *American Society of Mechanical Engineers, Transactions*, 1932, *54*, pp. 173-183.

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*A limited number of those reprints marked with an asterisk are still available and may be obtained on application to the Librarian.

Appendix D

ONTARIO RESEARCH FOUNDATION

Exhibit "A"

BALANCE SHEET

As At December 31, 1934

ASSETS

Cash in Bank and on Hand:			
In Canadian Bank of Commerce:			
Trust Bank Account	$49,639.15		
Operating Bank Account	11,032.46		
		$ 60,671.61	
Petty Cash		58.63	
			$ 60,730.24
Investments—At Cost:			
Canadian Trustee Bonds		$3,005,257.07	
Canadian Public Utility Bonds		253,532.61	
Realty Bonds		78,269.17	
Bonds of the British Empire outside Canada		85,670.47	
Foreign Government Bonds		19,259.08	
Miscellaneous Bonds		20,631.85	
Canadian Preferred Stocks		27,500.00	
		$3,490,120.25	
Accrued Interest thereon to December 31, 1934		47,404.01	
Total Investments			3,537,524.26
Accounts Receivable:			
Sundry Accounts Receivable		2,647.15	
Less: Reserve		1,247.36	
			1,399.79
Advances and Suspense			144.73
Stores and Containers			8,580.23
Prepaid Insurance			574.80
Fixed Assets (the property of Ontario Research Foundation):			
Structural Alterations and Additions		7,839.16	
Apparatus and Instruments		11,061.36	
Office Furniture and Fixtures		2,577.64	
Library		11,158.10	
			32,636.26
			$3,641,590.31

LIABILITIES, RESERVES AND SURPLUS

Accounts Payable			$ 525.27
Reserves:			
Reserve provided for depreciation in value of Securities		$ 225,000.00	
Reserves for Replacement of Equipment:			
Structural Alterations and Additions	$12,213.69		
Apparatus and Instruments	29,411.01		
Office Furniture and Fixtures	3,243.44		
Library	4,603.52		
		49,471.66	
Total Reserves			274,471.66
Total Subscriptions		3,726,670.00	
LESS: *Subscriptions Unpaid:*			
Not Due	221,810.00		
Overdue	141,810.00		
		363,620.00	
Subscriptions Paid			3,363,050.00
Income Surplus			3,543.38
			$3,641,590.31

Signed on behalf of Ontario Research Foundation,
RALPH SKELTON,
Secretary-Treasurer.

I have audited the books and accounts of Ontario Research Foundation for the year ended December 31, 1934 and I have received all the information and explanations I have required and I certify that, in my opinion and subject to my Report, the above Balance Sheet is a true and correct view of the affairs of Ontario Research Foundation as at December 31, 1934, according to the information and explanations given me and as shown by the books of account.

January 17, 1935.

A. ELLIOTT ALLEN, C.A.,
Of Allen, Miles & Fox,
Chartered Accountants.

Exhibit "B"

ONTARIO RESEARCH FOUNDATION

INCOME AND EXPENDITURE ACCOUNT

Year Ended December 31, 1934

Income:				
Balance at January 1, 1934			$ 1,995.94	
Bond Interest:				
Received	$129,307.37			
Accrued	47,404.01			
		$176,711.38		
Bank Interest		1,513.40		
Researches:				
For Industrial Corporations	24,439.90			
For Government Departments	13,442.07			
		37,881.97		
Discount Taken		46.18		
Sterling Exchange		1,368.60		
			217,521.53	
				$219,517.47
Expenditure:				
Salaries:				
Laboratory Salaries	86,735.24			
Other Salaries	26,494.37			
		113,229.61		
Laboratory Expense:				
Chemicals	1,139.04			
Apparatus	2,406.26			
Other Supplies	4,024.47			
Travelling	3,635.83			
Sundry	2,598.27			
Special Grants	2,271.10			
		16,074.97		
General Expense:				
U.S. Discount	50.25			
Bank Charges	88.25			
Brokers' Charges	33.60			
Extension Work	3,289.30			
Fuel	2,606.84			
Gas and Water	766.45			
General Expense	4,348.97			
Insurance	820.00			
Light and Power	1,400.73			
Office Expense	1,155.55			

Postage and Excise	358.00			
Repairs to Buildings	252.33			
Staff Annuity Account	1,699.68			
Telephone and Telegraph	978.83			
Travelling	499.06			
		18,347.84		
			147,652.42	
Depreciation:				
On Structural Alterations		2,255.23		
On Apparatus and Instruments		6,460.20		
On Furniture and Fixtures		655.90		
On Library		1,264.54		
			10,635.87	
Transferred to Securities Reserve Account			57,685.80	
				215,974.09
INCOME SURPLUS AS AT DECEMBER 31, 1934				$ 3,543.38

FORTY-EIGHTH ANNUAL REPORT

OF THE

Niagara Parks Commission

1933

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO
SESSIONAL PAPER No. 10, 1935

ONTARIO

TORONTO
Printed and Published by T. E. Bowman, Printer to the King's Most Excellent Majesty
1935

THE NIAGARA PARKS COMMISSION

NORMAN SOMMERVILLE, K.C., Chairman, Toronto.
LIEUT.-COLONEL L. CLARKE RAYMOND, K.C., Welland.
WILLIAM L. DORAN, Niagara Falls.
HON. J. D. CHAPLIN, M.P., St. Catharines.
HARRY Y. GRANT, Niagara Falls.
HON. GEO. S. HENRY, B.A., LL.D., Toronto.
R. HOME SMITH, Toronto.
DAVID M. WRIGHT, M.P., Stratford.
HARRY OAKES, Niagara Falls.

GENERAL MANAGER
JOHN H. JACKSON, M.E.I.C., O.L.S.

General View of Falls

FORTY-EIGHTH ANNUAL REPORT

OF THE

NIAGARA PARKS COMMISSION

TO THE HONOURABLE HERBERT A. BRUCE, R.A.M.C., M.A., F.R.C.S. (Eng.)
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The Niagara Parks Commission begs to submit for the information of the Legislature, the Forty-eighth Annual Report, covering the management of the Parks and Parkways under its jurisdiction, along the Niagara River during the fiscal year ending November 30th, 1933.

Since the presentation of the last annual report the personnel of the Commission has been materially changed through the retirement of R. Home Smith, Esquire, from the position of Chairman, and the appointment by Order-in-Council dated July 4th, 1933, of Norman Sommerville, Esquire, K.C., of the City of Toronto, to the task of framing the policy of the Park. From April 30th, 1929, Mr. Smith was Chief Commissioner and brought to his colleagues a keen sense of business administration in the execution of their important trust. It is a cause for congratulation that the retiring Chairman remains a member of the Board, with his wealth of practical ingenuity and experience, in carrying out large projects.

By the same Order-in-Council, Harry Oakes, Esquire, of Niagara Falls, Ontario, was appointed to the Commission which now consists of nine members.

TOURIST TRAFFIC

The volume of the tourist traffic catered to by the Operating Department again proved disappointing both in numbers and purchasing power, but more particularly in the latter feature. It is not generally realized that some 50 to 60 thousand crossings in one direction take place each day of the year over the International boundary between Canada and the United States, and that no other border between nations has as many. This intermingling of peoples has a tremendous effect, especially upon a small nation of ten millions. The peak years of 1928 and 1929 have given way by about 25% per annum when measured in gross revenue for each of the years 1930, 1931 and 1932, and the year 1933 saw a further recession, but 1932 was the low point for net receipts, and it is encouraging to see a very substantial sum realized during last season. Two prime factors enter into this large and growing trade, namely, good roads and adequate facilities for the visitor. The Commission has invested large amounts in both features to the general advantage of the Niagara district, although unable to reap but a small portion of the benefit directly. More wisely directed advertising is required, and this is very apparent when comparisons are made with the information put out to attract the eye by France, Italy, Switzerland and other European countries with a fuller realization of its value. Niagara Falls is fortunate in possessing a natural phenomenon that is unique in the whole world, as well as universal in its appeal, and yet only a few miles away may be found thousands who know nothing of the spectacle in detail and many that have no acquaintance with it at all. The preparation of concise descriptions of the numerous things to do, and see, on both sides of the river would save much confusion and keep the tourist from following blind trails.

The second important factor in tourist traffic consists of the facilities necessary for the visitors which comprise several classes. While hotels look after those who do not have to consider carefully the amount of money to be spent, there are the large numbers needing a cheaper and more informal service. For these, camps and cottages are available, but some are not kept up to a high standard. As in every other business the best advertisement is the satisfied customer, and it must be realized that the tourist with his motor car can seek out the place where he gets the best value much more easily than when railroads only were at his disposal. There must be a great deal more study given to this important revenue producer to find out the fundamental facts and then a broad policy must be laid down to suit them. It appears that much more co-operation and co-ordination are necessary to save a great waste of expenditure. At the present time there are too many individual agencies and associations striving to impress the visitor and draw traffic away from other highways regardless of the necessity and conveniencce of the tourist. If each traffic route and community would endeavour to emphasize its own individual characteristics and atmosphere, so that the motorist could have a free choice, the whole situation would be more satisfactory. Much might also be done to interest the tourist in purchasing those things which are particularly well done in Canada, as well as those things which are typical of the Province and the Nation.

For many years the Clifton House at Niagara Falls, Ontario, has been a hostelry well and favourably known all over this continent as well as in Europe. Overlooking the American and Horseshoe Falls, its large and spacious verandahs looked down the axis of the whole panorama. In the early days the hotel stood quite close to the edge of the gorge with only the roadway between the main building and the cliff side, and many notable gatherings were held in its dining rooms and convention hall. In May of the year 1898, at the opening of the tourist season, it was almost completely destroyed by fire and the ruins remained until 1905, when an excellently designed low building was erected with a centre façade oriented southerly to obtain the view of the Falls and Upper Rapids. Adjoining wings spread on either side, the one facing toward Falls View Bridge and the other toward Queen Victoria Park with all its wealth of beauty. On the last day of the year 1932 this splendid structure was again razed by fiery flames, beyond the power of man to subdue. Owing to the immediate uncertainty of tourist trade the directors of the Hotel Company decided to wind up the business and dispose of the property. At the same time the Hotel Lafayette, a well-known tourist resort of many years standing, was disposed of and the building torn down. This whole plot of ground approximately 460′ by 330′, would add largely to the Falls View Bridge entrance to Ontario if obtained for public use.

No settlement with the International Railway Company for its works which vested in the Commission in 1932, has yet been arranged, although some negotiations have taken place. The views of the Commission and the Company are wide apart, making it very likely that arbitration proceedings will be necessary.

There are still several cases of expropriation of land for the Niagara River Parkway which have not been settled, but one was completed when the Gripton property, composed of Part of Lot Number 21 in the Township of Niagara, was settled for and the land taken over as part of the Parkway scheme.

For a number of years the Commission has considered the requirements of Old Fort Erie in the way of picnic accommodation. In 1907 a small shelter was erected which has done excellent service, but no arrangements were made at that time for hot water to supply visiting parties. During the year a large pavilion was erected, with lavatory accommodation and space for lunch counter service. It is not certain whether this latter feature can be profitably operated at the present time, but it is so arranged that a test may be made at small expense. Free hot water will be available for parties using the grounds during the summer season.

Two additional tablets were prepared by the Historic Sites and Monuments Board of Canada, to preserve the memory of events at Fort Erie during the War of 1812-14. These were erected by the Commission and unveiled with appropriate ceremonies on September 10th. The inscription on the tablets is as follows:

"CAPTURE OF THE
OHIO AND SOMERS

Commemorating the
Enterprise, Skill and undaunted
Courage of Captain Alexander
Dobbs and seventy officers
and men of the Royal Navy and
Royal Marines in capturing the
United States ships of war.
Ohio and Somers in Lake Erie,
off this place, on the night
of 12th-13th August, 1814."

Erected 1933

FORT ERIE

These ruined walls and
ramparts, built in 1805-1808,
formed part of the Third
Fort Erie. Dismantled in May,
1813, but rebuilt in January,
1814. On 3rd July, 1814, it surrendered to invaders who
made it the strong point of
an entrenched camp.
Here their army, defeated
at Lundy's Lane, fled for shelter.
Unsuccessfully beseiged by
the British in August and
September, 1814; Evacuated on
5th November, 1814."

Erected 1933

In the year 1891 the Government of Ontario erected a bronze bust of Sir Casimir S. Gzowski, the first Chairman of the Commission, to commemorate his connection with the Park at Niagara Falls, but nothing of a permanent nature had been done about succeeding chairmen, now deceased. One of the original Commissioners was Mr. John Woodburn Langmuir, who became Chairman on the resignation of Sir Casimir S. Gzowski in 1894, and remained in that position until his death in 1915. A bronze bust of Mr. Langmuir has now been executed, and it will find a place at the main entrance to the Administration Building in the niche facing the Gzowski memorial.

During the year the State Reservation at Niagara, in the State of New York, lost by death its President, the Hon. Alphonso T. Clearwater, of Kingston, N.Y., and the Commission cannot help but express its deep feeling of appreciation for the many acts of co-operation which have taken place during Judge Clearwater's regime. The following resolution was unanimously adopted and forwarded to the Commissioners of the State Reservation:

"The Niagara Parks Commission have learned with the deepest regret of the death on September 23rd, 1933, of the Hon. Alphonso T. Clearwater, President of the State Reservation at Niagara, and desire to assure the Commissioners of the State Reservation of the high esteem in which he was held by Canadians who had the honour of knowing him.

"Appointed in the year 1916, and President since 1918, Judge Clearwater's keen interest in public matters and ripe judgment in the transaction of business, enabled him to give valuable counsel to his fellow Commissioners as well as the closest co-operation with the Parks Commission on the Canadian side of the Niagara River at Niagara Falls."

ENTERTAINMENT

The Commission entertained at the request of the Government the following prominent persons and parties during the year:

May 20th............	Women's Institute, Peel County.
July 17th............	Oxford-Cambridge Athletic Club.
August 21st..........	Premier of New Zealand (Hon. G. W. Forbes).
September 2nd........	Mr. and Mrs. Sarab Katrak of Karachi, India.

FINANCIAL

The Balance Sheet, together with the schedules of revenue and expenditure for the year, are appended hereto, and indicate the financial position of the Commission as at November 30th, 1933.

The revenue and expenditure statement shows in detail the receipts from all sources (including the Queenston-Chippawa rentals), together with the payments for maintenance, upkeep, administration, debenture interest, American exchange and provision for depreciation.

The maintenance of parks and parkways, including the cost of guards and caretaker and general items, required $152,564.67, a reduction of $37,413.26. Grants and special charges include $800.00 for maintaining Stoney Creek Battleground, $200.00 to the Niagara Falls Hospital, $3,150.00 for maintenance of the Falls illumination searchlights, $2,500.00 written off Clifton Hill paving, $5,000.00 written off the payment to the City of Niagara Falls in respect of the removal of the waterworks station from Queen Victoria Park, and $1,000.00

River Path, Niagara Glen

Niagara River Parkway through Paradise Grove, Niagara-on-the-Lake

Flower Garden, Queen Victoria Park

written off sewer construction in Fort Erie. Interest on outstanding debentures required $90,900.00, and discount on debentures which is being written off over the life of the several issues, $1,715.00. To pay principal and interest of $117,400.00 due in New York cost $4,496.25 for American funds, a large reduction over the previous year.

From revenue $5,612.20 was charged for depreciation on tools and equipment, and the insurance reserve against public liability increased by $1,551.54, the interest earnings on the fund. For depreciation on buildings and other capital improvements and for retirement of debenture debt $187,279.53 was charged against revenue, and $82,000.00 was used for the redemption of bonds falling due in New York on December 1st, 1933. Sinking Fund on term debentures amounted to $51,322.00. Capital expenditures during the year comprised the very small sum of $4,572.81, the main item of which was $3,805.33 on account of construction of the new pavilion at Fort Erie. Since the organization of the Commission 48 years ago, there has been returned to the Treasury of Ontario the sum of $3,589,811.89, which amount includes the Chippawa-Queenston rentals.

The receipts and expenditures together with the supporting vouchers have been examined and certified by the Provincial Auditor, while the assets and liabilities of the Commission shown in the Balance Sheet have been examined and reported upon by Messrs. Clarkson, Gordon, Dilworth, Guilfoyle and Nash.

All of which is respectfully submitted.

NORMAN SOMMERVILLE (*Chairman*).
L. CLARKE RAYMOND.
WILLIAM L. DORAN.
J. D. CHAPLIN.
H. Y. GRANT.
GEORGE S. HENRY.
R. HOME SMITH.
DAVID M. WRIGHT.
HARRY OAKES.

Niagara Falls, Ontario,
May 18th, 1934.

THE NIAGARA PARKS COMMISSION

BALANCE SHEET, 30th NOVEMBER, 1933

ASSETS

Lands, buildings and improvements, as per Schedule 1		$4,037,893 62
Office and restaurant equipment	$ 99,091 99	
Less: Reserve for depreciation	80,104 63	
	$ 18,987 36	
Tableware, linens and utensils, at cost less provision for depreciation	10,723 47	
		29,710 83
Park and road equipment	$ 42,462 71	
Less: Reserve for depreciation	39,568 30	
	$ 2,894 41	
Tools, at cost less provision for depreciation	854 57	
		3,748 98
Inventories of souvenirs and supplies		7,989 99
Investment of reserve funds, guaranteed investment receipts		192,622 93
Investment of insurance funds, guaranteed investment receipts		25,367 06
Cash on hand		1,900 00
Accounts receivable		1,034 75
Deferred charges, as per Schedule 11		50,766 15
Discount on bonds	$ 87,820 00	
Less: Proportion written off	23,446 63	
		64,373 37
		$4,415,407 68

LIABILITIES

4 per cent. instalment gold debentures, guaranteed by Province of Ontario, payable 1st December, 1933 to 1947	$1,635,000 00		
Less: Cash in bank to retire debentures maturing 1st December, 1933	82,000 00		
		$1,553,000 00	
5½ per cent. 15-year debentures due 1st August, 1947, guaranteed by Province of Ontario	$ 300,000 00		
Accrued interest thereon	5,500 00		
4½ per cent 5-year debentures due 15th October, 1937, guaranteed by Province of Ontario	$ 200,000 00		
Accrued interest thereon	1,134 24		
	$ 506,634 24		
Less: Sinking fund on deposit in Imperial Bank of Canada	61,716 00		
		444,918 24	
			$1,997,918 24
Imperial Bank of Canada—			
Direct advances		$ 161,716 00	
Overdraft in current account		64,325 97	
			226,041 97
Accounts payable			10,170 22
Reserve for depreciation on buildings and improvements and for retirement of instalment debentures			814,614 40
Reserve for sinking fund on term debentures			61,716 00
Insurance reserve against public liability			25,367 06
Surplus			1,279,579 79

Niagara River Parkway South

Niagara River Parkway South of Chippawa with H. E. P. C. Intake

Commitments:
(*a*) To purchase certain lands.
(*b*) To pay pensions of about $75.00 per month.
(*c*) In respect of the termination of a lease with the International Railway Company.

$4,415,407 68

SURPLUS ACCOUNT

FOR YEAR ENDING 30th NOVEMBER, 1933

Surplus at 1st December, 1932		$1,580,268 76
Excess of expenditure over revenue in year ending 30th November, 1933	$ 102,851 12	
Paid to Provincial Treasurer direct by Hydro-Electric Power Commission in respect of water rentals	197,837 85	
		300,688 97
Surplus at 30th November, 1933		$1,279,579 79

REVENUE AND EXPENDITURE

FOR YEAR ENDING 30th NOVEMBER, 1933

REVENUE

Net operating revenues as per schedule 2—			
From Table Rock House		$ 22,714 03	
From Refectory	*(*loss*)	8,261 54	
From Niagara Glen Inn	*(*loss*)	608 54	
From Queenston Restaurant	*(*loss*)	1,754 27	
From Brock's Monument		2,209 28	
From Clifton Incline		4,837 72	
			$ 19,136 68
Revenues from water rentals as per schedule 3			309,963 37
Revenues from privileges, tolls and fees, as per schedule 4			11,838 90
Interest:			
On bank deposits		$ 699 65	
On investments		11,612 07	
			12,311 72
Cash discounts and currency exchange			3,557 25
Sundry revenue			110 15
Total revenue			$ 356,918 07

*Note: Including depreciation as shown in schedule 2.

EXPENDITURE

Maintenance and upkeep expenses of parks, parkways and grounds, as per schedule 5		$ 99,618 95
Salaries and expenses of guards and caretakers, as per schedule 6		16,193 05
Administration expenses, as per schedule 7		24,638 20
Miscellaneous expense, as per schedule 8		12,114 47
Special grants, as per schedule 9		12,650 00
Interest:		
On debentures	$ 90,900 00	
Discount on debentures	4,715 00	
		95,615 00
American exchange on funds required for payment of principal and interest instalments on debentures		4,496 25
Depreciation on tools and sundry equipment		5,612 20
Insurance reserve against public liability:		
Interest earned on investment of reserve funds		1,551 54
		$ 272,489 66

Provision for depreciation on buildings and improvements and for retirement of debenture debt:		
For depreciation—Yearly provision	$ 43,000 00	
Interest on investments	10,060 53	
	$ 53,060 53	
For retirement of instalment debentures	82,000 00	
For sinking fund on term debentures:		
Yearly provision	51,322 00	
Interest on sinking fund	897 00	
		187,279 53
Total expenditure		$ 459,769 19
Excess of expenditure over revenue in the year		102,851 12
		$ 356,918 07

SCHEDULE 1

SCHEDULE OF LANDS, BUILDINGS AND IMPROVEMENTS

30th NOVEMBER, 1933

Lands and Improvements.		
Butler's Burial Ground	$ 5,354 78	
Parkway North (Fort George to Niagara Falls)	983,444 12	
Queenston Heights Park	144,299 92	
Niagara Glen	42,981 17	
Lundy's Lane Burial Ground	6,744 61	
Queen Victoria Park	1,023,850 25	
Parkway South (Queen Victoria Park to Fort Erie)	1,110,044 93	
Fort Erie Park	2,921 70	
		$3,319,641 48
Buildings:		
Queenston Restaurant	$ 18,188 66	
Queenston Souvenir Store	4,754 94	
Queenston Creche	8,173 03	
New Queenston Restaurant—plans	1,158 00	
Queenston Swimming Pool and Bath Houses—plans	208 04	
Niagara Glen Inn	23,918 14	
Administration Building	97,392 23	
Refectory	273,203 07	
Table Rock House	287,025 92	
Dufferin Island Refreshment Stand	424 78	
Fort Erie Pavilion	3,805 33	
		718,252 14
Total		$4,037,893 62

SCHEDULE 2

OPERATING ACCOUNT

FOR YEAR ENDING 30th NOVEMBER, 1933

Table Rock House and Lunch Room:			
Gross Receipts from Elevator		$ 34,744 50	
Gross Receipts from Souvenir Sales		15,422 77	
Gross Receipts from Lunch Room		5,770 84	
		$ 55,938 11	
Supplies used	$ 9,896 95		
Commissions paid	5,383 80		
Salaries and Other Expenses	14,470 50		
Depreciation on Equipment	3,472 83		
		33,224 08	
Net Operating Revenue			$ 22,714 03
Refectory:			
Gross Receipts from Dining Room		9,137 95	
Gross Receipts from Lunch Room		8,506 79	
		$ 17,644 74	

Supplies used	$ 9,333 44		
Salaries and Other Expenses	9,853 61		
Depreciation on Equipment	6,719 23	25,906 28	
Net Operating Loss (*Loss*)			8,261 54
Niagara Glen Inn:			
Gross Receipts from Rental		$ 300 00	
Salaries and Other Expenses	$ 347 19		
Depreciation on Equipment	561 35	908 54	
Net Operating Loss (*Loss*)			603 54
Queenston Restaurant:			
Gross Receipts from Rentals and Sundry Sales		$ 819 50	
Supplies used	$ 82 82		
Salaries and Other Expenses	566 77		
Depreciation on Equipment	1,924 18	2,573 77	
Net Operating Loss (*Loss*)			1,754 27
Brock's Monument:			
Gross Receipts from Tolls and Pamphlet Sales		$ 2,743 55	
Salaries and Other Expenses		534 27	
Net Operating Revenue			2,209 28
Clifton Incline:			
Gross Receipts from Inclined Railway		$ 1,532 50	
Gross Receipts from Souvenir and Refreshment Sales		11,402 03	
	$	12,934 53	
Supplies used	$ 3,928 40		
Commissions paid	599 00		
Salaries and Other Expenses	3,496 91		
Depreciation on Equipment	72 50	8,096 81	
Net Operating Revenue			4,837 72
Total			$ 19,136 68

SCHEDULE 3

REVENUE FROM WATER RENTALS

IN YEAR ENDING 30th NOVEMBER, 1933

From Canadian Niagara Power Company:		
Fixed	$ 15,000 00	
Additional	44,588 14	$ 59,588 14
From Ontario Power Company:		
Fixed	$ 30,000 00	
Additional	5,532 61	35,532 61
From Electrical Development Company:		
Fixed	$ 15,000 00	
Additional	2,004 77	17,004 77
		$ 112,125 52
From Hydro-Electric Power Commission in respect of the Queenston-Chippawa Development: For year ending 31st October, 1933		197,837 85
Total		$ 309,963 37

SCHEDULE 4

REVENUE FROM PRIVILEGES, TOLLS AND FEES

IN YEAR ENDING 30th NOVEMBER, 1933

From Niagara Spanish Aero Car Company		$ 3,500 00
From Maid-of-the-Mist Steamboat Company		2,500 00
From Bus Companies:		
Van Dyke—Sight Seeing	$ 234 97	
International Bus Corporation	45 99	
Gray Coach Lines	1,443 82	
Highway King Coach Lines Limited—Local and Sightseeing	3,740 02	
Sundry	44 12	
		5,508 92
Fees from Lundy's Lane Burial Ground		305 00
Rental—Clifton Incline		24 98
Total		$ 11,838 90

SCHEDULE 5

MAINTENANCE AND UPKEEP OF PARKS, PARKWAYS AND GROUNDS

FOR YEAR ENDING 30th NOVEMBER, 1933

Butler's Burial Ground	$ 628 40
Parkway North (Fort George to Queenston)	6,089 27
Queenston Heights Park	9,799 10
Parkway North (Queenston to Niagara Falls)	9,710 76
Niagara Glen	2,405 84
Lundy's Lane Burial Grounds	1,572 42
City of Niagara Falls	2,770 94
Queen Victoria Park	53,109 05
Parkway South (Queen Victoria Park to Fort Erie)	10,695 59
Parkway South (Town of Fort Erie)	854 75
Fort Erie Park	1,982 83
Total	$ 99,618 95

SCHEDULE 6

SALARIES AND EXPENSES OF GUARDS AND CARETAKERS

FOR YEAR ENDING 30th NOVEMBER, 1933

Butler's Burial Ground	$ 230 88
Fort George to Queenston	853 02
Queenston Heights Park	1,803 08
Queenston Heights to Niagara Falls	1,903 01
Niagara Glen	1,080 86
Lundy's Lane Burial Ground	1,181 87
Queen Victoria Park	6,615 01
Queen Victoria Park to Fort Erie	2,256 12
Fort Erie Park	269 20
Total	$ 16,193 05

SCHEDULE 7

ADMINISTRATION EXPENSES

FOR YEAR ENDING 30th NOVEMBER, 1933

Executive and Office Salaries	$ 21,743 37
Office Supplies	1,020 93
Office Expense	1,470 64
Travelling Expenses	211 51
Commissioners' Expenses	191 75
Total	$ 24,638 20

SCHEDULE 8

MISCELLANEOUS EXPENSES

FOR YEAR ENDING 30th NOVEMBER, 1933

Insurance	$ 4,129 00
Pensions	900 00
Entertainment	268 42
Interest on Bank Loan	3,145 92
Professional Services	1,803 00
Exchange on Bond Coupons	118 87
Expenses of Bond Issues	52 40
Contribution to Superannuation Fund	1,696 86
Total	$ 12,114 47

SCHEDULE 9

GRANTS AND SPECIAL CHARGES

IN YEAR ENDING 30th NOVEMBER, 1933

Stoney Creek Battleground—Grant	$ 800 00
Niagara Falls General Hospital—Grant	200 00
Board of Illumination	3,150 00
Clifton Hill Pavement—portion written off	2,500 00
City of Niagara Falls re Water Works—portion written off	5,000 00
Trunk Sewer Lake Shore Road—portion written off	1,000 00
Total	$ 12,650 00

SCHEDULE 10

CAPITAL EXPENDITURES

IN YEAR ENDING 30th NOVEMBER, 1933

Parkway North:	
Lands	$ 700 00
Queen Victoria Park to Fort Erie:	
Lands	67 48
Fort Erie Park:	
Construction of Pavilion	3,805 33
Total	$ 4,572 81

SCHEDULE 11

DEFERRED CHARGES

30th NOVEMBER, 1933

Expenditure in 1930 on repairs to Brock's Monument	$ 17,038 45	
Less: Four-fifths written off against revenue to date	13,638 45	
		$ 3,400 00
Payment made by the Commission in 1932 to the City of Niagara Falls in respect to the removal of the City Water Works from the Park Properties	50,000 00	
Less: One-fifth written off against revenue in the past fiscal year	10,000 00	
		40,000 00
Legal, Engineering, Surveying Fees and cost to date of protection of property in connection with International Railway Lease terminated in 1932		7,366 15
Total		$ 50,766 15

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